



HIV/AIDS EPIDEMIOLOGIC PROFILE FOR THE STATE OF NEW JERSEY 2004



Richard J. Codey
Acting Governor

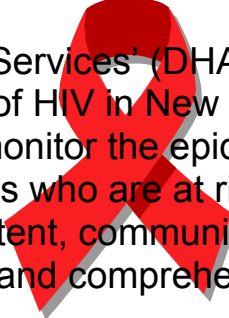
**The Division of HIV/AIDS Services
...preventing disease with care**



Fred M. Jacobs, M.D., J.D.
Commissioner

The Division of HIV/AIDS Services

Mission Statement



The Division of HIV/AIDS Services' (DHAS) mission is to prevent, treat, and reduce the spread of HIV in New Jersey. In keeping with this mission, the DHAS will monitor the epidemic, and assure through its resources that individuals who are at risk or infected with HIV have access to culturally competent, community-based networks that provide qualitative and comprehensive services.

Vision

Consistent with the mission, the DHAS vision for providing HIV services is a coordinated community and statewide effort supported by public and private partnerships to provide comprehensive services that assure:

- All residents, regardless of age, race, gender, class, sexual orientation, or ethnic background, are equipped with appropriate information to make informed behavioral decisions and choices that will not place them and those with whom they interact at risk for HIV infection;
- Support for strong, positive community attitudes and social norms;
- Communities have the necessary resources for prevention, testing, and interventions to reduce the spread of HIV/AIDS, and
- Communities have the necessary comprehensive, community-based, culturally competent, affordable network of care services to maximize the quality of life for those individuals living with HIV/AIDS.

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List of Abbreviations

ADDP	AIDS Drug Distribution Program
ADADS	New Jersey Alcohol and Drug Abuse Data System
AIDS	Acquired Immunodeficiency Syndrome
AUS	Anonymous Unlinked Surveys
AZT	Zidovudine
CARE	Comprehensive AIDS Resources Emergency (Act)
CDC	Centers for Disease Control and Prevention
DHAS	Division of HIV/AIDS Services
DHSS	New Jersey Department of Health and Senior Services
EIP	Early Intervention Program
EMA	Eligible Metropolitan Area
GA	General Assistance
HARS	HIV/AIDS Reporting System
HAART	Highly Active Antiretroviral Therapy
HCV	Hepatitis C Virus
HITS	HIV Testing Survey
HIV	Human Immunodeficiency Virus
HRH	High-risk Heterosexual
ICD-10	International Classification of Disease Tenth Revision
IDU	Injection Drug Use(r)
MSM	Male-to-Male Sex/Men Who Have Sex with Men
MMWR	Morbidity and Mortality Weekly Report
PAAD	Pharmaceutical Assistance to the Aged and Disabled
PLWHA	People Living With HIV/AIDS
RVCT	Report of a Verified Case of Tuberculosis
RWCA	Ryan White CARE Act
SCBW	Survey of Childbearing Women
STD	Sexually Transmitted Disease
TB	Tuberculosis
UB	Uniform Billing
ZDV	Zidovudine (also known as AZT)

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Executive Summary

The New Jersey statewide epidemiologic profile was developed to assist groups planning HIV/AIDS services in the State. It summarizes the socio-demographic characteristics of New Jersey, describes the scope of the HIV/AIDS epidemic, identifies those at risk for HIV/AIDS, examines services that are needed, and highlights our successes and challenges.

New Jersey is the most densely populated State in the nation with a racially and ethnically diverse population. New Jersey's median household income ranks first in the nation, however, in eight of New Jersey's 21 counties, more than 10% of the households have incomes below the poverty line. Approximately 16% of New Jersey residents between the ages of 18 and 65 are uninsured.

Over 65,000 New Jersey residents have been reported with HIV/AIDS and just under half of these individuals have died. Nationally, New Jersey ranks fifth in cumulative AIDS cases, third in cumulative pediatric AIDS cases, and has the highest proportion of cumulative AIDS cases in women. Ten counties account for 84% of persons living with HIV/AIDS (PLWHA) in the State with Essex and Hudson Counties having the highest rates of infection. Approximately half of PLWHA are between the ages of 25 and 44 years of age, however, in 2002, 30% of newly diagnosed HIV/AIDS cases occurred in individuals 45 years of age and older.

As of December 31, 2004: 1 in every 65 Black non-Hispanics, 1 in every 185 Hispanics, and 1 in every 783 White non-Hispanics was living with HIV/AIDS. More PLWHA in 2004 were exposed through sexual contact (male-to-male sex or heterosexual sex), however, injection drug use continues to be a major mode of transmission and accounts for more cases than either heterosexual transmission or male-to-male sex alone.

Advances in treatment have led to a decline in the number of pediatric infections, and have slowed the progression from HIV to AIDS and enhanced survival after AIDS. The number of deaths due to HIV disease has declined, and over half of the HIV infected population is living more than ten years after diagnosis with AIDS. However, HIV disease remains the third leading cause of death for Black males, the fifth leading cause of death for Black females and the first leading cause of death for Black men and women between the ages of 25 and 44.

We have identified and provided care for many HIV-infected individuals in New Jersey. However, individuals are still being infected with a preventable disease, and an analysis of unmet need indicates that many individuals may not be in care. Self-reported survey data, increasing rates of sexually transmitted diseases, as well as admission to drug treatment in New Jersey demonstrate that risky behavior still occurs. Our challenge is to continue to care for those already infected while reducing the rate of new infections.

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Introduction

This epidemiologic profile provides a comprehensive analysis of the HIV/AIDS epidemic in New Jersey. It is a useful tool for planners and providers working to prevent and reduce the spread of HIV and care for those already infected. Specifically, the profile summarizes the socio-demographic characteristics of the population; describes the impact of HIV/AIDS on the population; identifies those at risk for becoming HIV infected; and describes the geographic distribution of the epidemic. The epidemiologic profile is written for use by all individuals interested in understanding, planning for, or providing services to those affected by HIV/AIDS in New Jersey.

The profile addresses the following questions:

- **What are the socio-demographic characteristics of the general population in New Jersey?**
- **What is the scope of the HIV/AIDS epidemic and its effect on communities, families and individuals in New Jersey?**
- **What are the indicators of risk for HIV/AIDS infection among New Jersey residents?**
- **What are the indicators of need for HIV services in New Jersey?**
- **What are the barriers and challenges to preventing the spread of HIV and providing treatment for persons living with HIV in New Jersey?**

Profile Strengths and Limitations

When making planning decisions, it is important to consider the overall strengths and limitations of the available data.

Some of the strengths of this profile are:

- New Jersey has had a comprehensive HIV/AIDS reporting system for over 20 years that includes information on demographic characteristics, clinical and laboratory findings, and transmission risk for men, women and children infected with HIV/AIDS.
- New Jersey has had Enhanced Perinatal Surveillance for 10 years, a system that follows children born to HIV positive mothers; and has continued the Survey of Childbearing Women (SCBW) to monitor births to HIV positive mothers.
- New Jersey participated in several studies of risk taking and testing behaviors.

Some of the limitations of this profile are:

- Information is not available on persons who are HIV positive but not reported, or who have not been tested.
- Information may be incomplete due to reporting delays and missing data on a person's exposure to HIV.
- Information may be incomplete on those persons who are diagnosed with HIV in New Jersey and reported to the data system but relocate out of state.

Data Sources

In order to present an accurate description of the epidemic we have used data from multiple sources. The most current analysis available is presented for each source of data; however the time frames differ from one source to another. Due to a lag in reporting, data for new diagnoses are presented through 2002. Data for persons living with HIV/AIDS are presented through 2004 as the reporting lag has minimal effect on this value. Data from the United States Census Bureau July 1, 2003 Bridged Population Estimates is used for calculating rates by race/ethnicity, gender distribution and county. When data are not available for 2003, data from the 2000 Census are used.

Below is a list of the data sources used in this profile. A more detailed description of each data source can be found in Appendix A.

- Enhanced Perinatal Surveillance;
- HIV Testing Survey (HITS);
- HIV/AIDS Reporting System (HARS);
- National Sexually Transmitted Disease Surveillance;
- New Jersey Alcohol and Drug Abuse Data System (ADADS);
- New Jersey Death Data;
- Supplemental HIV/AIDS Surveillance System (SHAS);
- Survey of Childbearing Women (SCBW);
- Uniform Billing Hospital Discharge Data (UB-92);
- United States Census Bureau;
- Urban Institute and Kaiser Commission on Medicaid and the Uninsured, and
- New Jersey Department of Labor's Division of Labor Market & Demographic Research.



Definitions

Some of the definitions used in this Epidemiologic Profile are provided to assist in understanding HIV/AIDS data and to provide information on why some data are included.

- An **HIV case** is a person diagnosed and reported to the State's HIV/AIDS Reporting System (HARS) with HIV infection. An **AIDS case** is a person with HIV infection who has an opportunistic infection or a CD4+ count of less than 200 cells/mm or whose proportion of CD4 (+) T-lymphocytes is less than 14% of their total lymphocytes and who has been reported to the HARS. All AIDS cases are persons infected with HIV, but not all persons infected with HIV are AIDS cases.

Note: Since the HIV disease may be seen as a continuum, throughout this profile the data will be shown on HIV/AIDS when possible. In addition, when New Jersey is compared to the rest of the nation, only AIDS cases can be reported because a standardized national system of named reporting of HIV cases is not available.

- **Cumulative cases** include all cases that have been diagnosed and reported since 1982, including those individuals who have died.
- **Prevalence** is the total number of individuals who have been diagnosed with HIV/AIDS, minus those who have died. This profile

provides data on **estimated prevalence** by using the number of persons **living with HIV or AIDS** who have been diagnosed, reported to the HARS and are not known to have died. It does not include data on persons who are infected, but who have not been diagnosed and/or reported to HARS.

- A **rate** is the number of cases (of a condition or event) divided by the total population exposed to the condition or event in a given time period. A rate is often expressed as cases per 100,000. In this profile, **estimated prevalence rates** are based on HIV/AIDS cases that were reported to HARS and are not known to have died. Actual prevalence rates are reported only for specific sub-populations for which special studies were conducted. **Estimated incidence rates** are based on the number of cases reported as diagnosed during the year. Incident infections can only occur if prevalent infections exist. In other words, the disease must be transmitted from someone who already has it. Although **incidence** and **prevalence** are different, they are related and both are important to consider in planning for prevention, as well as, care and treatment.
- **Incidence** is the number of new cases within a given period of time. This profile includes **estimated incidence**, the number of persons who have been diagnosed during the year and reported to the HARS. Since the actual date of HIV

infection is not known, the date of diagnosis is used.

Note: Because rates account for differences in the size of sub-populations, the use of rates is essential for comparing different population categories at different times or places.

- **Risk exposures** Although we usually cannot determine exactly how or when a person was infected, it is possible to determine which behaviors put a person at risk for infection. In the 1980s the Centers for Disease Control and Prevention established a hierarchy to categorize modes of exposure for persons reported with AIDS based on their risk exposures. Behaviors most likely to lead to infection are higher in the hierarchy than those less likely to lead to infection.

Individuals are categorized as follows. Men who report sexual contact with other men, and men who report sexual contact with both men and women are placed in the 'male-to-male sex' (MSM) category. Persons reporting having injected drugs anytime since 1978 are placed in the 'injection drug use' (IDU) category. Men with both a history of sexual contact with other men and

injection drug use are placed in the "MSM-IDU" category. Then follows persons with hemophilia/coagulation disorder. Persons who report specific heterosexual sex with a person with, or at increased risk for, HIV infection (e.g., an injection drug user or person known to be infected with HIV) are placed in the "Heterosexual" category. Heterosexual sex with a person of unknown risk or unknown HIV status is reported as "heterosexual sex with partners of unknown HIV risk," and heterosexual risk with persons of known risk will be reported by the risk status of the partner. Persons who received a transfusion prior to March 1985 were then placed in the "other/unknown" category. The ascertainment of exposure category is incomplete, especially for cases reported recently. Some cases currently in the "other/unknown" category may be redistributed later to known exposure as follow-up investigations are completed.

Individuals diagnosed under the age of 13 are considered pediatric cases. Perinatal transmission occurs when the virus is passed from mother to child during pregnancy or delivery.

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Socio-demographic Characteristics of the General Population in New Jersey

Lying between New York City and Philadelphia, in the heart of a highly urbanized area, New Jersey is a geographically small, but heavily populated State. With over 8.6 million people (three percent of the total national population), New Jersey is the tenth most populated State, but the fifth smallest geographically. New Jersey is one of the most urbanized states in the nation. According to the United States Census Bureau, New Jersey is the most densely populated State, with 1,134 people per square mile (the national population density is 80 persons per square mile) and is the



only State in which all counties are officially classified as metropolitan.

The State includes vast wetlands and undisturbed stretches of the Delaware Bay as well as many farms, and scenic and rugged terrain.

One of the State's most treasured prizes is its 127 miles of white sand beaches that draw thousands of visitors and families each year to enjoy the surf, sand, sun, fun and excitement of the famous Jersey Shore.

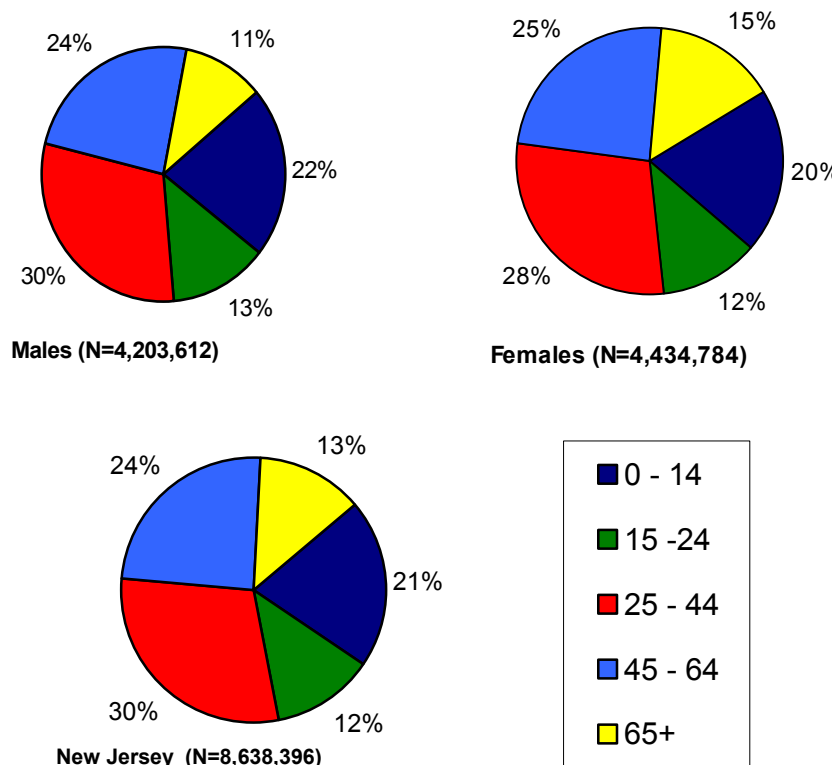


Demographics

Slightly more residents of New Jersey were female (51.3%) than male (48.7%) in 2003. Just below one third of New Jersey residents were between 25 and 44 years of age (Figure 1). A larger proportion of the male population is under 45 years of age compared to females (65% for males versus 60% for females). The larger number of females in the 65 and older age category is a reflection of the longer life expectancy of females. According to the 2003 population estimate, New Jersey's population is older than the national

average (median age 37.5 years in New Jersey compared to 36 years nationally). The percentage of the population aged 65 and older is 13 percent in New Jersey compared to 12 percent nationally. Similar to the national trend, the oldest age group (85 years and over) is growing at the fastest rate in New Jersey. As of the July 1, 2003 population estimates, New Jersey had the twelfth largest numerical increase in population since the 2000 census, and the highest in the Northeast region.

Figure 1. Percentage Distribution of the Population of New Jersey by Age Group and Gender – Estimates as of July 1, 2003

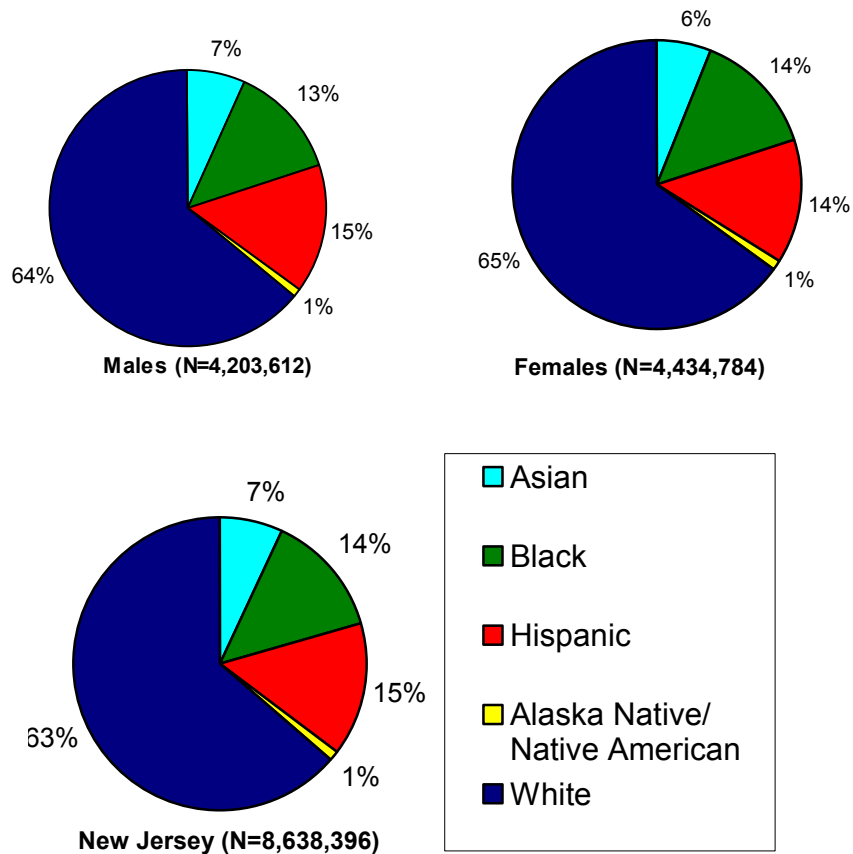


Source: U.S. Census Bureau July 1, 2003 Bridged Population Estimates



According to the 2003 population estimates, (Figure 2 and Figure 3), 65 percent of the population of New Jersey were White non-Hispanic; 14 percent were Black non-Hispanic; 7 percent were Asian/Pacific Islander; 15 percent were Hispanic; and fewer than one percent were Native American/Alaska Native. New Jersey is more racially and ethnically diverse than most other states in the nation. Approximately 15% of New Jersey's residents were foreign immigrants as of 2000 and it ranks fifth in percentage of foreign-born persons in the nation.

Figure 2. Percentage Distribution of the Population of New Jersey by Race/Ethnicity and Gender – Estimates as of July 1, 2003



Source: U.S. Census Bureau July 1, 2003 Bridged Population Estimates

According to the 2000 Census, New Jersey had the seventh highest population of Hispanics in the United States. Hispanics represented 9.6 percent of the State's population in 1990 and 15 percent in 2003. Persons of Hispanic origin (of any race) accounted for approximately 55.2 percent of New Jersey's total population growth from 1990 through 2000. The Hispanic population grew 51.0 percent during this period outpacing the 4.4 percent growth rate in the non-Hispanic population. By 1997, there were estimated to be more than one million Hispanic residents in the State, and the population grew to 1,117,191 according to the 2000 Census.



During the decade of the 1990s, however, the fastest growing population in New Jersey was Asian/Pacific Islanders (85.7% increase). This was a continuation of the high growth rate among this population during the 1980s. With an estimated population of 514,273 persons of Asian or Pacific Islander background, New Jersey ranked fifth nationally in numbers of Asian or

Pacific Islander residents in the 2000 Census. New Jersey's six percent of the total population was the highest proportion of Asian or Pacific Islanders outside the nation's West Coast. Based on data from the New Jersey Department of Labor's Division of Labor Market and Demographic Research, only California had higher proportions of Asian or Pacific Islanders as of 2000.

From the 1990 to the 2000 censuses, the Black population in New Jersey increased by 16.8 percent. Blacks (including Hispanics) represented 14.8 percent of the State's population in 2000. With a population of 1,124,469 in 2000, New Jersey's Black population ranked thirteenth in the nation. In 2003, however, the Black population accounted for 14 percent of the State's population. The Native American and Alaska Native population is estimated to have grown by 82.1 percent in the State between the censuses of 1990 and 2000. Current estimates reveal that there are 28,778 residents of Native American/Alaska Native origin (including Hispanics) in the State, representing 0.3 percent of the total population.

Between 1990 and 2000, New Jersey's White population (including Hispanics) increased by 4.1 percent. With a population of 6,629,830, New Jersey had the ninth highest White population among the fifty states in 2000. Based on the 2003 population estimate, in Essex and Hudson Counties, the State's majority racial/ethnic group (White non-Hispanic) is the minority. In Essex County the largest

racial/ethnic group is Black non-Hispanic; in Hudson County the largest racial/ethnic group is Hispanic (Table 1). The largest concentrations of Hispanics are in Hudson, Passaic, Union and Cumberland Counties. The

largest concentrations of Black non-Hispanics are in Essex, Union, Mercer, and Cumberland Counties. The largest concentrations of Asian/Pacific Islanders are in Middlesex and Bergen Counties.

Table 1. Percentage Distribution of the Population of New Jersey by Race/Ethnicity and County of Residence – Estimates as of July 1, 2003

County	Population No.	Hispanic N= 1,254,466	White non-Hispanic N= 5,613,438	Black non-Hispanic N= 1,178,980	Native American/ Alaska Native N= 16,089	Asian/ Pacific Islander N= 575,423
Atlantic	263,410	13.3	63.8	16.9	0.2	5.8
Bergen	897,569	12.1	69.9	5.4	0.1	12.5
Burlington	444,381	4.7	75.3	16.3	0.2	3.4
Camden	513,909	10.7	66.2	18.8	0.2	4.1
Cape May	101,845	3.6	90.8	4.8	0.2	0.6
Cumberland	149,306	21.0	57.1	20.1	0.8	1.0
Essex	796,313	16.8	37.1	41.8	0.2	4.1
Gloucester	266,962	2.9	85.6	9.6	0.2	1.7
Hudson	607,419	41.1	35.7	12.7	0.2	10.3
Hunterdon	128,265	3.4	91.7	2.4	0.1	2.4
Mercer	361,981	10.9	62.3	20.1	0.2	6.5
Middlesex	780,995	15.3	58.5	9.3	0.2	16.7
Monmouth	632,274	7.0	80.2	8.0	0.1	4.6
Morris	483,150	8.9	80.8	2.8	0.1	7.3
Ocean	546,081	5.8	89.5	3.1	0.1	1.5
Passaic	498,357	32.5	50.5	12.6	0.2	4.1
Salem	64,854	4.4	79.7	15.0	0.3	0.6
Somerset	311,600	10.1	70.9	8.2	0.1	10.7
Sussex	151,146	4.3	92.7	1.3	0.1	1.5
Union	529,360	22.4	51.8	21.5	0.1	4.2
Warren	109,219	4.9	90.7	2.5	0.1	1.8
Total	8,638,396	14.5	65.0	13.6	0.1	6.6

Source: U.S. Census Bureau July 1, 2003 Bridged Population Estimates

New Jersey residents are more likely to speak languages other than English than United States residents. Like the United States as a whole, Spanish is the most frequently spoken language other than English in New Jersey (Table 2).

Table 2. Major Languages Spoken at Home in New Jersey

	% of New Jersey	% of United States
Spanish	12%	11%
Other Indo-European	8%	4%
Asian/Pacific Island	4%	3%

Note: This data is collected from persons five years old and older.

Source: U.S. Census Bureau: American Community Profile, 2002

Socio-economic Status



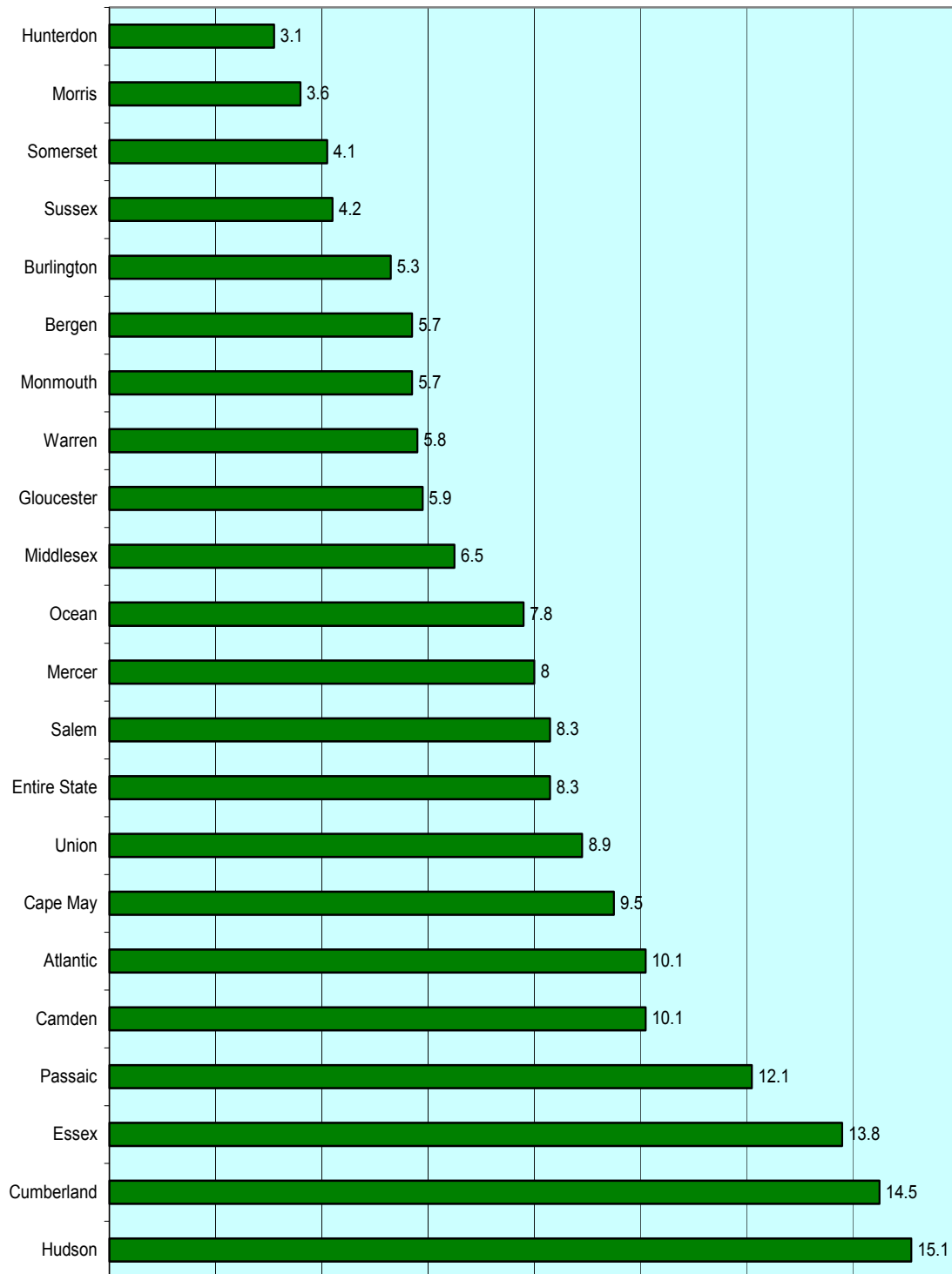
According to the 2003 American Community Survey, New Jersey median household income (\$58,588) ranks first and is well above the national median household income (\$43,564). As a result, the percentage of New Jersey's population living in poverty is much lower than in the nation as a whole. Less than nine percent of New Jersey's residents (8.3%) had incomes below the level of poverty

compared to 12.7 percent nationally. However, in eight of New Jersey's 21 counties, more than 10 percent of the residents have incomes below the poverty line (Figure 3). One county, Hudson, has 15 percent or more of its residents below the poverty level.

In New Jersey, 82.1 percent of the State's residents (aged 25 years and over) have high school diplomas (Table 3), compared to 80.4 percent nationally (data not shown). Almost 30 percent of New Jersey residents have bachelor's degrees, compared to 24.4 percent nationally. The counties with the lowest percentages of high school graduates are Cumberland, Hudson, and Passaic. The counties with the highest percentage of high school graduates are Hunterdon, Morris, Sussex, and Somerset.

From the Current Population Survey conducted in 2001 and 2002, it was found that for individuals 19 through 64 years of age, 20 percent of men and 16 percent of women reported that they did not have health insurance coverage. Most men (70%) and women (71%) in New Jersey were covered by employer based health care insurance. However, coverage through individual plans is small and equal for both men and women (4%). New Jersey's Medicaid program accounts for five percent and seven percent of insurance coverage for men and women, respectively (Table 4).

Figure 3. Percentage of New Jersey Residents Under the Poverty Level by County in 2002



Source: U.S. Census Bureau

Table 3. Percentage of Population 25 Years or Older in New Jersey with High School Diplomas or Higher by County in 2002

County	High school diploma or higher	Bachelor's degree or higher
Atlantic	78.2	18.7
Bergen	86.6	38.2
Burlington	87.2	28.4
Camden	80.3	24.0
Cape May	81.9	22.0
Cumberland	68.5	11.7
Essex	75.6	27.5
Gloucester	84.3	22.0
Hudson	70.5	25.3
Hunterdon	91.5	41.8
Mercer	81.8	34.0
Middlesex	84.4	33.0
Monmouth	87.9	34.6
Morris	90.6	44.1
Ocean	83.0	19.5
Passaic	73.3	21.2
Salem	79.4	15.2
Somerset	89.6	46.5
Sussex	89.8	27.2
Union	79.3	28.5
Warren	84.9	24.4
Entire State	82.1	29.8

Source: U.S. Census Bureau

Table 4. Percentage of Population 19 through 64 Years of Age by Insurance Status and Gender in New Jersey for 2002 and 2003

	Male, % N=2,561,490	Female, % N=2,671,160
Employer	70	71
Individual	4	4
Medicaid	5	7
Uninsured	20	16
Total	100	100

Source: Urban Institute and Kaiser Commission on Medicaid and the Uninsured.
U.S. Census Bureau, Current Population Survey.

Scope of the Epidemic

Reported Cases

Overview

In the third decade of the HIV epidemic in the United States, there is still no vaccine or cure. Although successful public health efforts have reduced the number of annual new infections from over 150,000 in the late 1980s to about 40,000 today, the fight to end HIV/AIDS related illness and death continues.

Following the introduction of combination antiretroviral therapy in the 1990s, the number of deaths and new AIDS cases in the United States began to decline for the first time in the history of the epidemic. Between 1995 and 1998, the annual number of new AIDS cases fell by 38 percent (from 69,242 to 42,832) and deaths by 63 percent (from 51,760 to 18,823). According to the Centers for Disease Control and Prevention (CDC), declines in morbidity and mortality have stabilized in more recent years.

Nationally, minorities have been disproportionately affected by HIV/AIDS. Black non-Hispanics, who represent only 14 percent of the United States population, account for 38 percent of the cumulative AIDS cases and 54 percent of new HIV infections. Hispanics, who comprise about 12 percent of the United States population, account for 18 percent of the cumulative AIDS cases and 19 percent of new HIV infections.

During the past two decades, over 65,000 New Jersey residents have been reported with HIV/AIDS and approximately half of these individuals have died. As of December 2004, New Jersey had a cumulative total of 47,672 AIDS cases reported. There were also 17,732 persons reported with HIV (not AIDS) in the State as of that date. Nationally, New Jersey ranks fifth in cumulative AIDS cases, third in cumulative pediatric AIDS cases, and has the highest proportion of women among those living with AIDS.

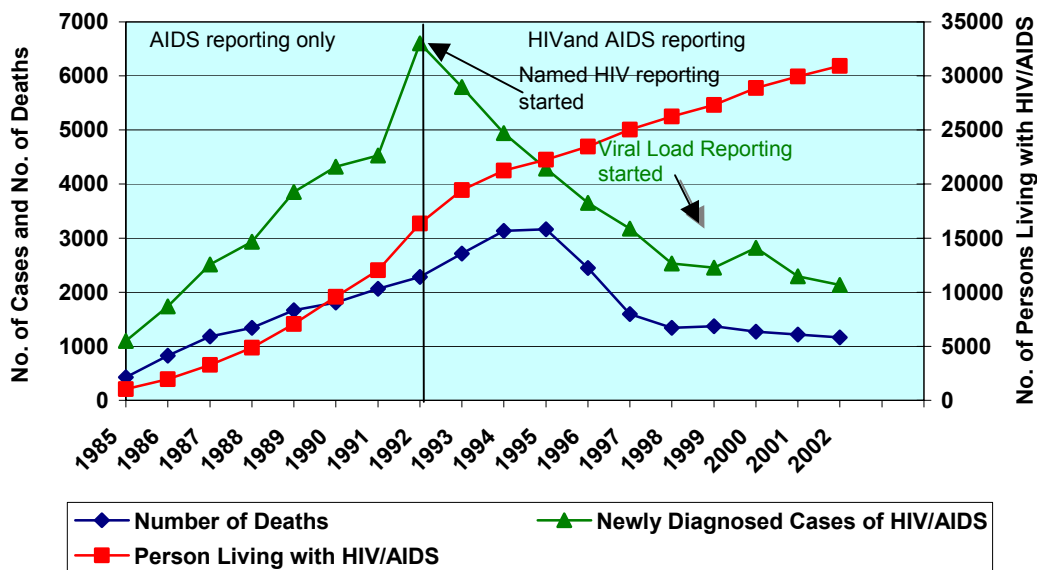


From the beginning of the HIV/AIDS epidemic, New Jersey differed from the national profile. In the early years of the epidemic, injection drug users represented the largest proportion of AIDS cases in New Jersey, while men who have sex with men represented the largest proportion of AIDS cases nationally. New Jersey reported HIV infections in large numbers of women and minorities in the mid to late 1980s, well before most of the country saw large numbers in those populations. As of December 31, 2004, women represent 36 percent of persons living with HIV/AIDS, and minorities represent 78 percent of persons living with HIV/AIDS.

Overall, diagnosed cases and deaths have declined slightly in the last few years following dramatic declines during the 1990s. The number of people living with

HIV/AIDS has increased steadily. Prior to 1992, AIDS, but not HIV-only cases were reported. The number of AIDS cases increased steadily from 1985 through 1991. The implementation of named HIV reporting in 1992 led to a spike in diagnosed cases of HIV/AIDS in that year as HIV cases were added to the count. Diagnoses of new HIV/AIDS cases decreased from 1992 through 2002 with an increase occurring in 2000. The increase in 2000 may be due to the fact that viral load reporting was initiated in that year and the fact that additional laboratory reports were added to the registry, rather than because of a change in the epidemic. Deaths (from any cause) of persons with HIV/AIDS rose steadily until 1995. Improved treatments led to a sharp decline in deaths after 1995, and smaller decreases since 1997 (Figure 4).

Figure 4. Estimated HIV/AIDS Cases, Deaths and Persons Living with HIV/AIDS by Year 1985-2002 in New Jersey



Source: New Jersey HARS as of 12/31/2004

The epidemic differs geographically and across racial/ethnic groups, gender, age groups and exposure categories. An overview of the epidemic is presented in Table 5.

Discussions on the impact of geographic location, gender, race/ethnicity, age, and exposure category follow.

Table 5. Overview of HIV/AIDS in New Jersey

	Estimated Living with HIV/AIDS in 2004						Diagnosed HIV/AIDS in 2002					
	Male		Female		Total		Male		Female		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Race/Ethnicity												
Black, non-Hispanic	10,724	51	7,457	64	18,181	55	715	51	490	66	1,205	57
Hispanic	4,710	22	2,085	18	6,795	21	302	22	129	18	431	20
White, non-Hispanic	5,216	25	1,951	16	7,167	22	353	25	102	14	455	21
Other/Unknown^{a,b}	393	2	210	2	603	2	28	2	16	2	44	2
Age Group	Age at 12/31/2004						Age at the first diagnoses					
0 – 12	166	1	183	2	349	1	11	1	12	1	23	1
13 – 24	467	2	404	4	871	3	76	5	75	10	151	7
25 – 44	9,702	46	6,416	55	16,188	49	871	62	455	62	1,326	62
45 – 64	10,156	48	4,439	38	14,595	45	408	29	182	25	590	28
65+	522	32	261	2	813	2	32	3	13	2	45	2
Exposure												
MSM	6,100	29	N/A	N/A	6,100	19	416	30	N/A	N/A	416	20
IDU	6,484	31	3,555	30	10,039	31	296	21	141	19	437	21
MSM/IDU	860	4	N/A	N/A	860	2	26	2	N/A	N/A	26	1
Heterosexual sex with:												
-Injection Drug User	413	2	1,407	12	1,820	6	26	2	56	8	82	4
-Bisexual male	N/A	N/A	114	1	114	1	N/A	N/A	5	1	5	0
-HIV+ partner with other risk	1,937	9	2,947	25	4,884	15	193	14	229	31	422	20
-Partner with unknown risk	2,948	14	2,459	21	5,407	16	286	20	237	32	523	24
Other/Unknown^(b)	2,301	11	1,221	11	3,522	11	155	11	69	9	224	10
Total	21,043	100	11,703	100	32,746	100	1,398	100	737	100	2,135	100

a. Other includes Asian/Pacific Islander and American Indian/Alaska Native.

b. Other/Unknown are combined due to the low number of cases in the 'other' category.

Source: New Jersey HARS as of 12/31/2004

Geographic Impact

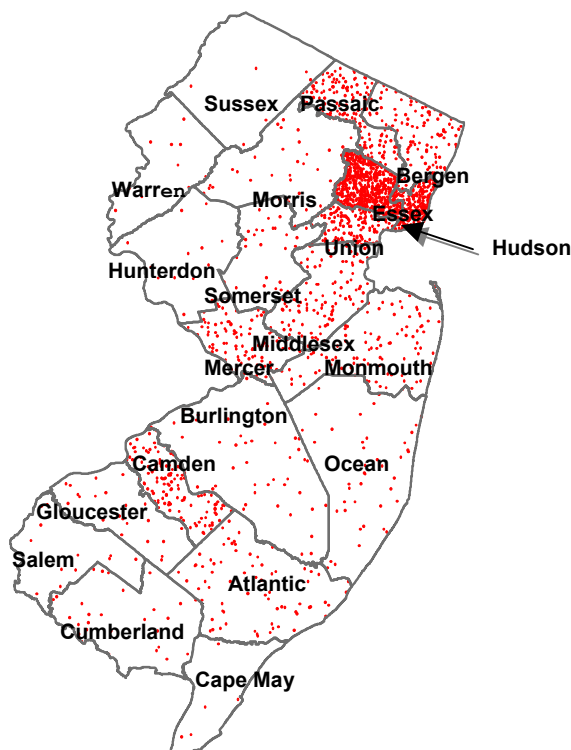
By County

Cases of HIV/AIDS are not equally distributed across the State. Patterns of PLWHA and those newly diagnosed in 2002 are similar (Figures 5 and 6). The highest concentration of PLWHA is along the New York City to Philadelphia corridor. This includes the Counties of Passaic, Bergen, Hudson, Union, Essex, Middlesex, Monmouth, and Mercer. The second highest concentration of HIV/AIDS cases is in the Philadelphia to Atlantic City corridor that includes Camden and Atlantic Counties.

All 21 counties in New Jersey are classified by the United States Census

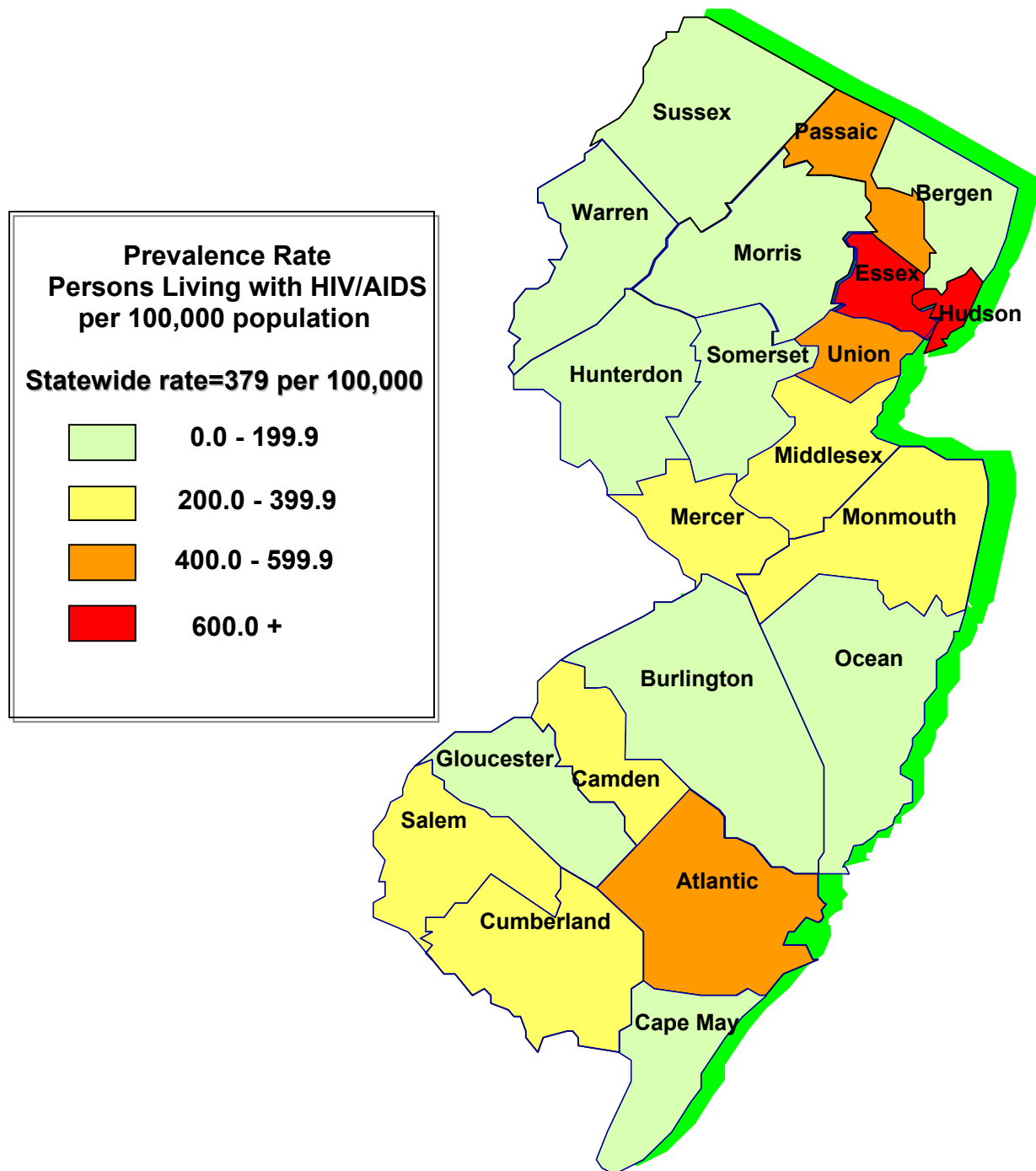
Bureau as “metropolitan,” but only ten counties (Atlantic, Bergen, Camden, Essex, Hudson, Mercer, Middlesex, Monmouth, Passaic and Union) account for 84 percent of persons living with HIV/AIDS in the State. Five of these counties (Essex, Hudson, Passaic, Union and Atlantic) are disproportionately affected. This is most dramatic in Essex and Hudson Counties. Statewide, one in every 264 individuals was living with HIV/AIDS in 2004. In Essex County that number was one in every 86 persons, and in Hudson one in every 140 individuals was living with HIV/AIDS in 2004.

Figure 5. Estimated Persons Diagnosed with HIV/AIDS in New Jersey in 2002



Note: One dot equals one person. Dots are randomly placed within county.
Source: New Jersey HARS as of 12/31/2004.

Figure 6. Estimated Prevalence of Persons Living with HIV/AIDS in New Jersey as of December 31, 2004



Note: Nine cases with unknown county of residence and 1,868 cases diagnosed while incarcerated are not included in prevalence rate calculations.

Source: New Jersey HARS as of 12/31/2004. U.S. census July 2003 Bridged Population Estimates.

HIV/AIDS Services Planning

The Centers for Disease Control and Prevention (CDC) requires that New Jersey support the New Jersey HIV Prevention Community Planning Group (NJHPCPG) process to recommend prioritized target populations and interventions for statewide allocation of prevention funds provided through the HIV Prevention Cooperative Agreement. Those recommendations are made on a biannual basis in the New Jersey Comprehensive HIV Prevention Plan utilizing this Epidemiologic Profile.



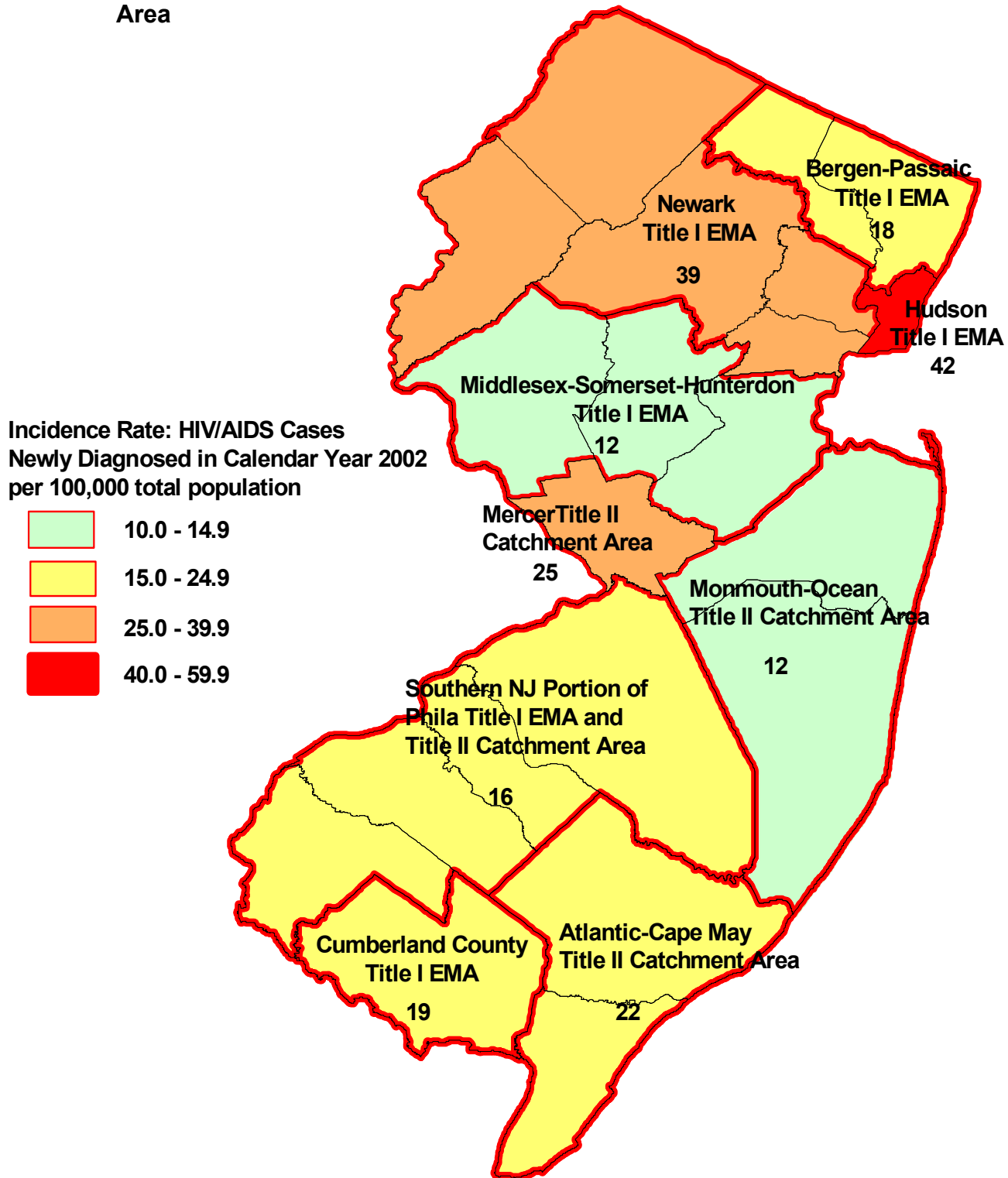
New Jersey has six planning bodies that prioritize allocation of Ryan White CARE Act Title I funding for HIV care and treatment.¹ Title I provides funding to eligible metropolitan areas (EMA) which are metropolitan statistical areas with a population of at least 500,000 and more than 2,000 reported AIDS cases within the past five years. The

Ryan White Title I EMAs in New Jersey are:

- Bergen-Passaic EMA;
- Hudson County EMA;
- Middlesex-Somerset and Hunterdon County EMA;
- Newark EMA (Essex, Morris, Sussex, Union, and Warren);
- Vineland-Millville-Bridgeton EMA, and the
- Philadelphia EMA (New Jersey counties of Camden, Burlington, Gloucester and Salem).

In addition to the Title I planning bodies, the State of New Jersey, as the recipient of Ryan White Title II funds, established a statewide planning body known as the New Jersey Statewide Coordinated Statement of Need Planning Task Force (NJSCSNPTF). This planning body works collaboratively to identify significant issues related to the needs of PLWHA and to maximize coordination of services statewide. The NJSCSNPTF represents Atlantic, Cape May, Mercer, Monmouth, and Ocean Counties as well as the New Jersey part of the Philadelphia EMA. The rate of HIV/AIDS infection diagnosed in the 2000 catchment areas for each of the planning bodies is shown in Figure 7.

Figure 7. Rates per 100,000 of HIV/AIDS Cases Diagnosed in 2002 by Planning Area



Source: New Jersey HARS as of 12/31/2004. U.S. Census Bureau July 2003 Bridged Population Estimates (State of New Jersey Average Year 2002 Incidence Rate=25 new HIV/AIDS cases per 100,000 population).

Race/Ethnicity

Living With HIV/AIDS



A pattern of disparity of HIV/AIDS among the various racial/ethnic groups has

been relatively consistent. By 2004, Black non-Hispanics represented 56 percent of the total number of persons reported living with HIV/AIDS, although they represent only 14 percent of the population of New Jersey. Hispanics represented 20 percent of those living with HIV/AIDS in 2001 while representing 15 percent of the population. White non-Hispanics represented 22 percent of persons living with HIV/AIDS, but represented 67.0 percent of the total population. Asians, Native Americans and those with unknown race/ethnicity accounted for 2 percent of the infected population and 7 percent of the State's total population (Table 6). The rates of persons living with HIV/AIDS in New Jersey as of December 31, 2004 more clearly illustrates this disparity:

- One in every 65 Black non-Hispanics was living with HIV/AIDS;
- One in every 185 Hispanics was living with HIV/AIDS, and
- One in every 783 White non-Hispanics was living with HIV/AIDS.

This disparity is even greater among women as the rate of Black non-Hispanic men living with HIV/AIDS in 2004 is ten times the rate for White non-Hispanic men, but the rate for Black non-Hispanic women living with HIV/AIDS in 2004 is 18 times that of White non-Hispanic women. Black non-Hispanic females represent 41 percent of Black non-Hispanics living with HIV/AIDS; Hispanic females represent 31 percent of Hispanics living with HIV/AIDS; and White non-Hispanic females represent 27 percent of Whites living with HIV/AIDS (Table 6). This may be related to the fact that mode of transmission varies across racial and ethnic groups as discussed in the section on Risk Exposure.

Table 6. Estimated Persons Living with HIV/AIDS in New Jersey by Race/Ethnicity and Gender in 2004

Race	Male			Female			Total		
	No.	%	Rate	No.	%	Rate	No.	%	Rate
Black, non-Hispanic	10,724	51	1,930	7,457	64	1,196	18,181	55	1,542
Hispanic	4,710	22	740	2,085	18	338	6,795	21	542
White, non- Hispanic	5,216	25	192	1,951	16	67	7,167	22	128
Other/Unknown ^{a,b}	393	2	134	210	2	70	603	2	102
Total	21,043	100	501	11,703	100	264	32,746	100	379

a. Other includes Asian/Pacific Islander and American Indian/Alaska Native.

b. Other/Unknown are combined due to the low number of cases in the 'other' category.

Note: Rates are per 100,000 population based on the July 1, 2003 Bridged Race Estimates.

Source: New Jersey HARS as of 12/31/2004

Trends in New Diagnoses

This same disparity in the impact of HIV/AIDS among the various racial/ethnic groups is also reflected in the pattern of infections diagnosed from 1998 to 2002 (Figure 8). Although generally, the number of infections has decreased in each racial/ethnic group, minorities still comprise the majority of new infections.

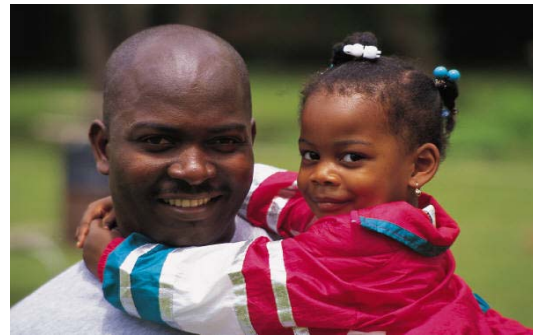
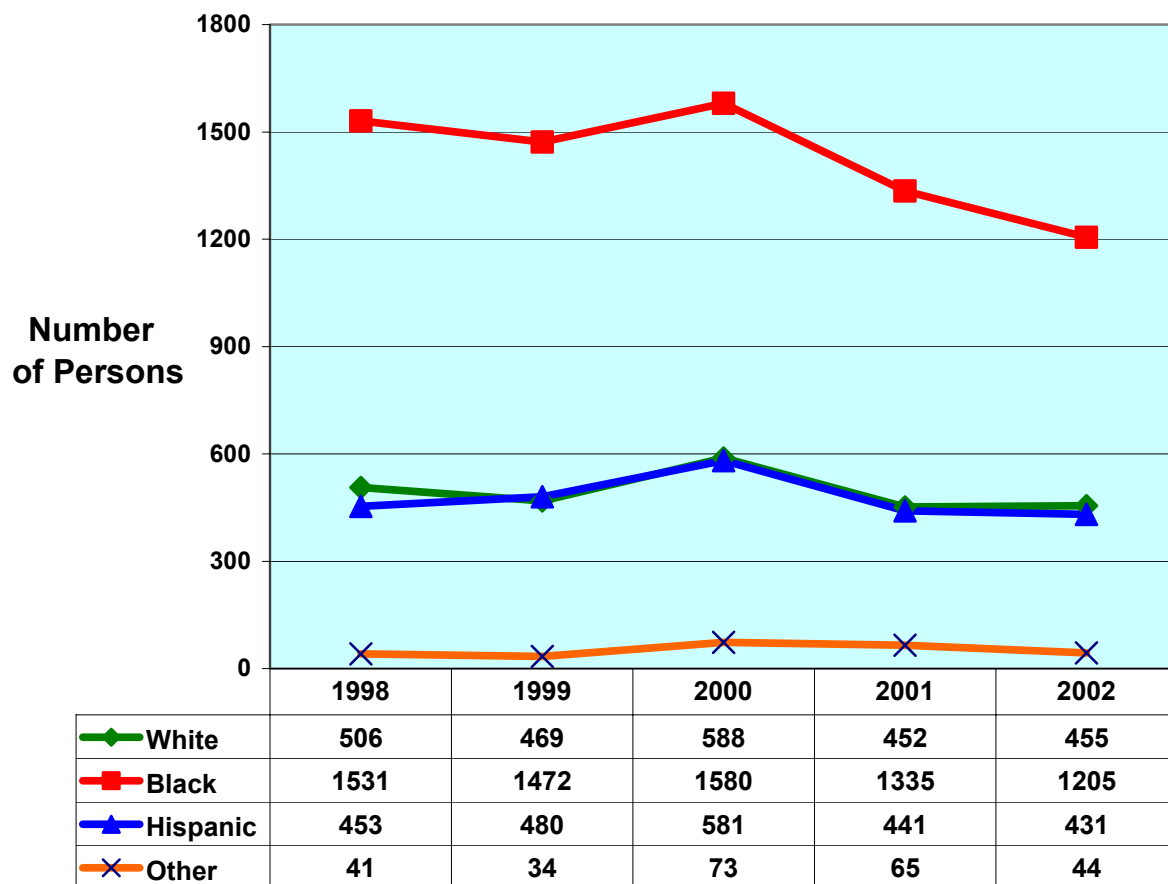


Figure 8. Estimated Number of Individuals Diagnosed with HIV/AIDS in New Jersey by Race/Ethnicity and Year of Diagnosis



Source: New Jersey HARS as of 12/31/2004

Exposure Category

Living With HIV/AIDS

At the beginning of the epidemic, the highest proportion of AIDS cases in New Jersey were exposed through IDU. In 2004 persons exposed through IDU (31% IDU, and 3% IDU and MSM) and IDU associated (6% heterosexual sex with an IDU) continue to account for a large proportion of cases (40%). Those exposed through sexual contact (sex with men for women, and male to male sex for men) account for 60 percent of all persons living with HIV/AIDS in 2004 (Tables 7 and 8). It should be noted that individuals whose exposures are both IDU associated and through sexual contact are counted

twice in calculating these percentages. The increase in reported exposures due to heterosexual sex is in part due to the fact that this report classifies heterosexually active persons with partners of unknown risk as exposed through heterosexual sex. Previously these individuals were classified as having an unknown risk. Over half of men reporting heterosexual exposure as their mode of exposure had partners with unknown risk, compared to just over one third of women. As heterosexual transmission from females to males is less likely, this may represent an underreporting of male-to-male sex by men (Table 8).

Table 7. Estimated Adult/Adolescent Persons Living with HIV/AIDS in New Jersey

Risk Exposure	Male		Female		Total	
	No.	%	No.	%	No.	%
MSM ^a	6,100	29	N/A	N/A	6,100	19
IDU ^b	6,484	31	3,555	31	10,039	31
MSM/IDU	860	4	N/A	N/A	860	3
Heterosexual sex	5,298	25	6,927	61	12,225	38
Other/Unknown ^c	1,943	9	860	8	2,823	9
Total	20,685	100	11,342	100	32,027	100

Note: Does not include individuals under the age of 13 at diagnosis.

a. MSM=Male to male sex

b. IDU=Injection drug use

c. Other/Unknown are combined due to the low number of cases in the 'other' category.

Source: New Jersey HARS as of 12/31/2004.

Table 8. Estimated Adult/Adolescent Persons Living with HIV/AIDS in New Jersey by Heterosexual Risk by Partner Risk

Risk of Heterosexual Partner	Male		Female		Total	
	No.	%	No.	%	No.	%
Injection Drug User	413	8	1,407	20	1,820	15
Bisexual Male	N/A	N/A	114	2	114	1
HIV+ Partner with Other Risk	1,937	37	2,947	43	4,884	40
Partner with Unknown Risk	2,948	56	2,459	35	5,407	44
Total	5,298	100	6,927	100	12,225	100

Note: Does not include individuals under the age of 13 at diagnosis.

Source: New Jersey HARS as of 12/31/2004

The proportion of men and women living with HIV/AIDS in 2004 varied by exposure category and racial/ethnic group. The greatest percentage of Hispanic and Black non-Hispanic men living with HIV/AIDS in 2004 were exposed through injection drug use. However, the greatest percentage of White non-Hispanic men were exposed through sex with another man (Table 9). The lower proportion of non-White men indicating sex with men, and the higher proportion of non-White

men indicating exposure through heterosexual sex and IDU, may explain the greater racial disparity in women. Data concerning men who have sex with men and women is presented later in this profile. The risks of the partners of men who reported heterosexual exposure were comparable across all races and ethnic groups with most being exposed with a partner of unknown HIV risk (Table 10).

Table 9. Estimated Number and Percent of Men Living with HIV/AIDS in New Jersey Exposure Category and Race/Ethnicity in 2004

Exposure Category	White non-Hispanic		Black non-Hispanic		Hispanic		Other/Unknown ^a		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
MSM ^b	2500	48	2,187	21	1,323	28	90	23	6,100	30
IDU ^c	1,160	22	3,737	36	1,555	34	32	8	6,484	31
MSM/IDU	247	5	430	4	176	4	7	2	860	4
Heterosexual Contact	770	15	3,198	30	1,238	28	92	24	5,298	25
Other/Unknown ^d	495	10	927	9	351	8	170	43	1,943	10
Total	5,172	100	10,479	100	4,643	100	391	100	20,685	100

Note: Does not include individuals under the age of 13 at diagnosis.

a. Other includes Asian/Pacific Islander and American Indian/Alaska Native. The categories of unknown race/ethnicity and other race/ethnicity are combined due to the small number of cases in the 'other' category.

b. MSM=Male-to-male sex

c. IDU=Injection drug use

d. The categories of other exposure and unknown exposure are combined due to the small number of cases in the 'other' category.

Source: New Jersey HARS as of 12/31/2004

Table 10. Estimated Number and Percent of Men Living with HIV/AIDS in New Jersey Exposed by Heterosexual Sex by Risk of Partner and Race/Ethnicity in 2004

Risk of Heterosexual Partner	White non-Hispanic		Black non-Hispanic		Hispanic		Other/Unknown ^a		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Injection Drug User	55	7	253	8	102	8	3	3	413	8
HIV+ Partner with Other Risk	275	36	1,155	36	480	39	27	29	1,937	37
Partner with Unknown Risk	440	57	1,790	56	656	53	62	67	2,948	56
Total	770	100	3,198	100	1,238	100	92	100	5,298	100

Note: Does not include individuals under the age of 13 at diagnosis.

Source: New Jersey HARS as of 12/31/2004

A different pattern of known exposure emerges for women living with HIV/AIDS in 2004 (Table 11). For all racial and ethnic groups, women are most likely to have been exposed through heterosexual sex (61%). However, IDU associated exposures are still a major risk (43% which includes 31% IDU plus 12% heterosexual sex with an IDU), particularly among White non-Hispanic women. The majority of White non-Hispanic women (53%) were exposed through IDU or sexual contact with an IDU. In contrast, Black non-Hispanic and Hispanic women living with HIV/AIDS were more likely to have been exposed through heterosexual sex as

through IDU or IDU associated exposure. Black non-Hispanic women who reported exposure through heterosexual sex were less likely to know the risk of their partner (Table 12). This may be due to a reluctance of Black non-Hispanic men to identify as gay, and hence have sex with men and women.



Table 11. Estimated Number and Percent of Women Living with HIV/AIDS in New Jersey by Race/Ethnicity and Exposure Category in 2004

Exposure Category	White non-Hispanic		Black non-Hispanic		Hispanic		Other/Unknown ^a		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Injection Drug Use	739	39	2,269	32	523	26	24	12	3,555	31
Heterosexual sex	1,007	53	4,435	61	1,384	68	101	50	6,927	61
Other/Unknown ^b	153	8	510	7	118	6	79	39	860	8
Total	1,899	100	7,214	100	2,025	100	204	100	11,342	100

Note: Does not include individuals under 13 years of age at diagnosis.

a. Other includes Asian/Pacific Islander and American Indian/Alaska Native. The categories of unknown race/ethnicity and other race/ethnicity are combined due to the small number of cases in the 'other' category.

b. The categories of other exposure and unknown exposure are combined due to the small number of cases in the 'other' category.

Source: New Jersey HARS as of 12/31/2004

Table 12. Estimated Number and Percent of Women Living with HIV/AIDS in New Jersey Exposed by Heterosexual Sex by Risk of Partner and Race/Ethnicity in 2004

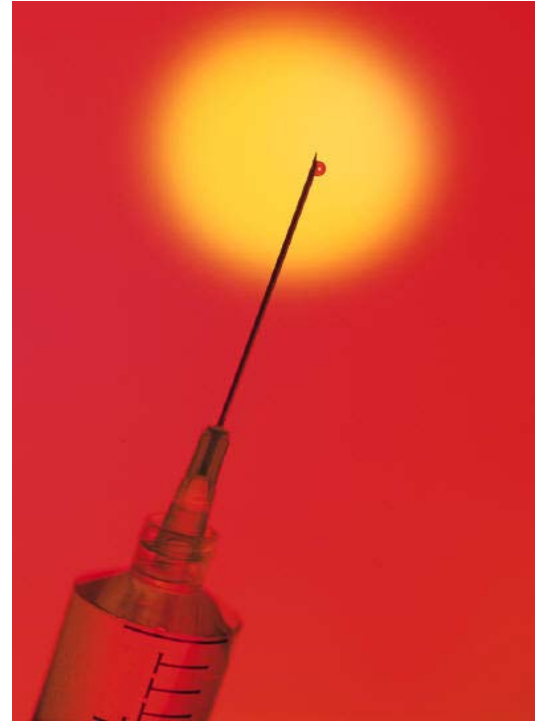
Exposure Category	White non-Hispanic		Black non-Hispanic		Hispanic		Other/Unknown ^b		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Injection Drug User	288	29	788	18	324	23	7	7	1,407	20
Bisexual male	19	2	76	2	19	1	0	0	114	2
HIV+ partner with other risk	381	38	1,891	42	626	45	49	49	2,947	43
Partner with unknown risk	319	32	1,680	38	415	30	45	45	2,459	35
Total	1,007	100	4,435	100	1,384	100	101	100	6,927	100

Note: Does not include individuals under 13 years of age at diagnosis.

Source: New Jersey HARS as of 12/31/2004

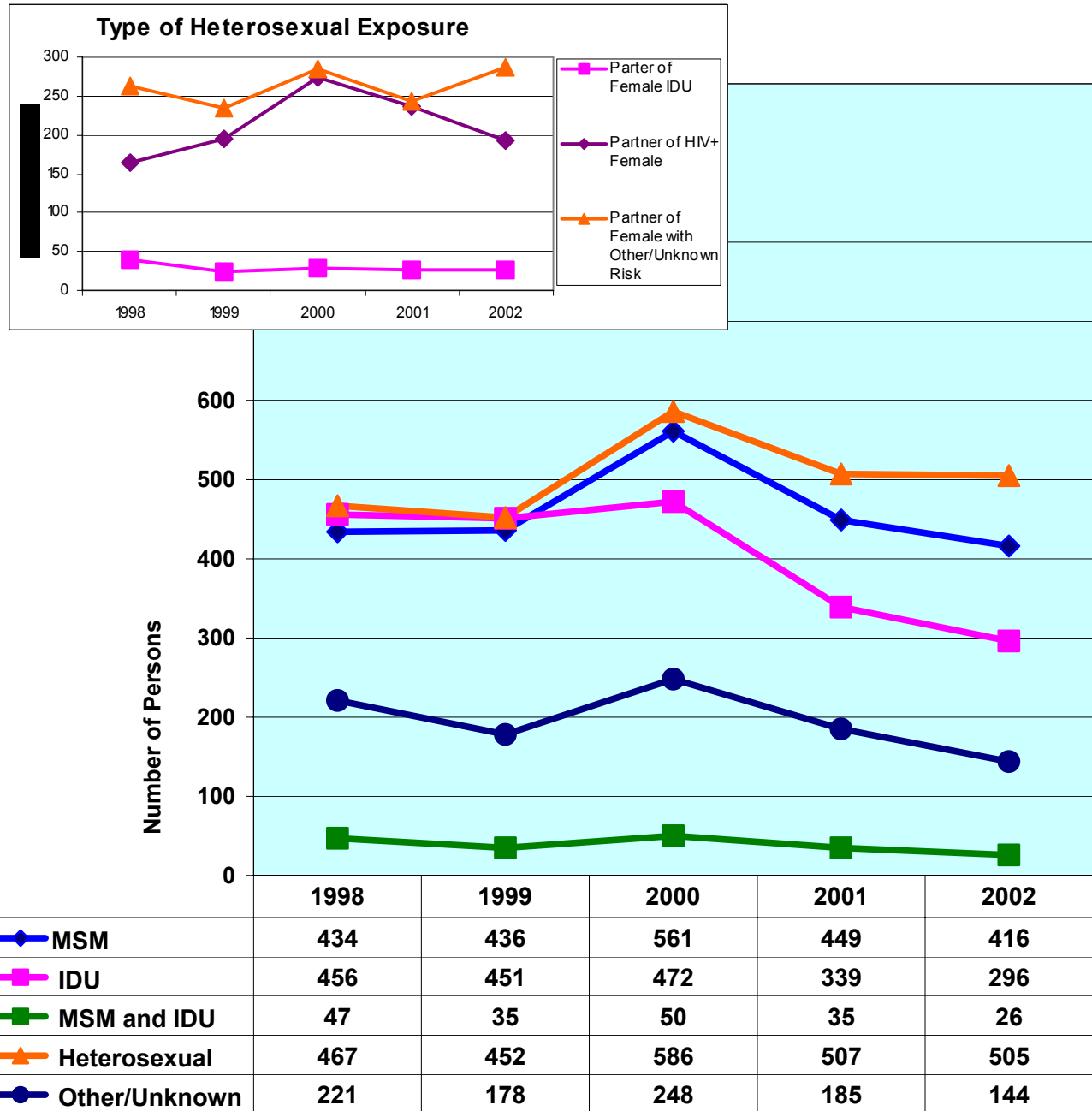
Trends in New Diagnoses

From 1998 through 2002, of the men and women diagnosed with HIV/AIDS who have a reported mode of exposure, a higher proportion were exposed through sexual contact than by any other mode of exposure (62% for men and 67% for women) (Figures 9 and 10). For men, male-to-male sex (regardless of whether male-to-female sex also occurred) accounted for 31 percent of all exposures and heterosexual sex (sex with women but not men) for 31% of all exposures. The proportion of newly diagnosed women exposed through IDU declined from 27 percent in 1998 to 19 percent in 2002. The proportion of newly diagnosed men exposed through IDU declined from 28 percent in 1998 to 21 percent in 2002. The proportion of individuals exposed through sexual contact remained stable for men and women.



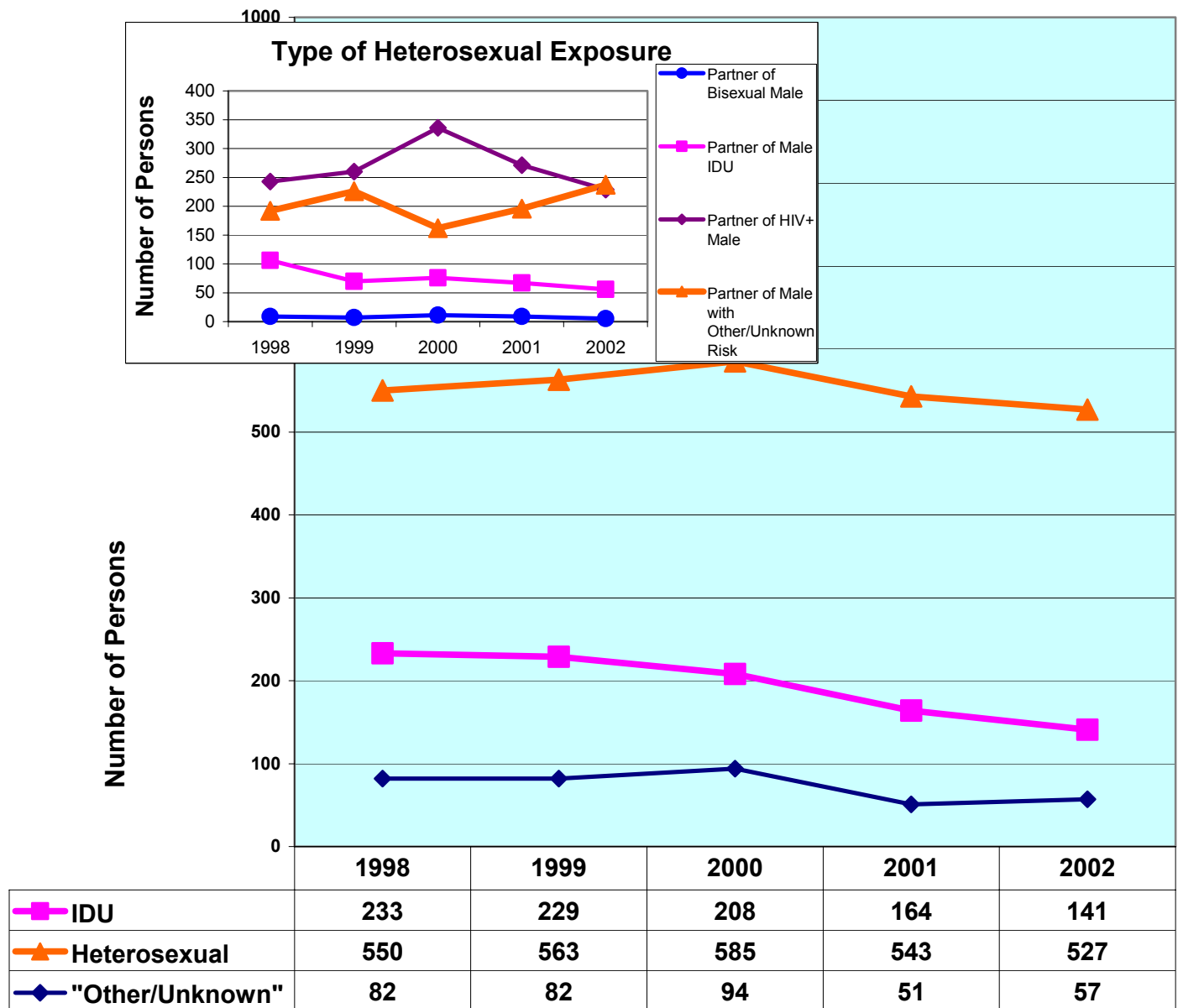
Similar to the modes of exposure for PLWHA a greater proportion of men diagnosed from 1998 through 2002 who reported heterosexual exposure did not know the risk of their partner compared to women (See Figures 9 and 10 insert).

Figure 9. Estimated Number of Adult/Adolescent Males Diagnosed with HIV/AIDS in New Jersey by Mode of Exposure and Year of Diagnosis



Note: MSM=Male-to-male sex. IDU=Injection drug use.
Source: New Jersey HARS as of 12/31/2004

Figure 10. Estimated Number of Adult/Adolescent Females Diagnosed with HIV/AIDS in New Jersey by Mode of Exposure and Year of Diagnosis



Note: IDU=Injection drug use.
Source: New Jersey HARS as of 12/31/2004.

Age

Living With HIV/AIDS



In 2004 the average age of a PLWHA was 44 years, and almost half of PLWHA are 45 years old or older. The increase in persons older than 45 living with HIV/AIDS may be

attributed to the fact that people are living longer with HIV/AIDS so those who were infected at a younger age are maturing into this age category; and a greater proportion of cases reported with HIV/AIDS since 1998 are older than 45 years of age at the time of diagnosis compared with those reported prior to 1998 (data not shown).

The prevalence rate for men of all ages living with HIV/AIDS is almost twice that of females. However, the prevalence

rate for males and females infected under the age of thirteen, and for males and females thirteen to twenty-four years of age are almost equal. This is because most of these infections occurred perinatally (Table 13).

New Diagnoses

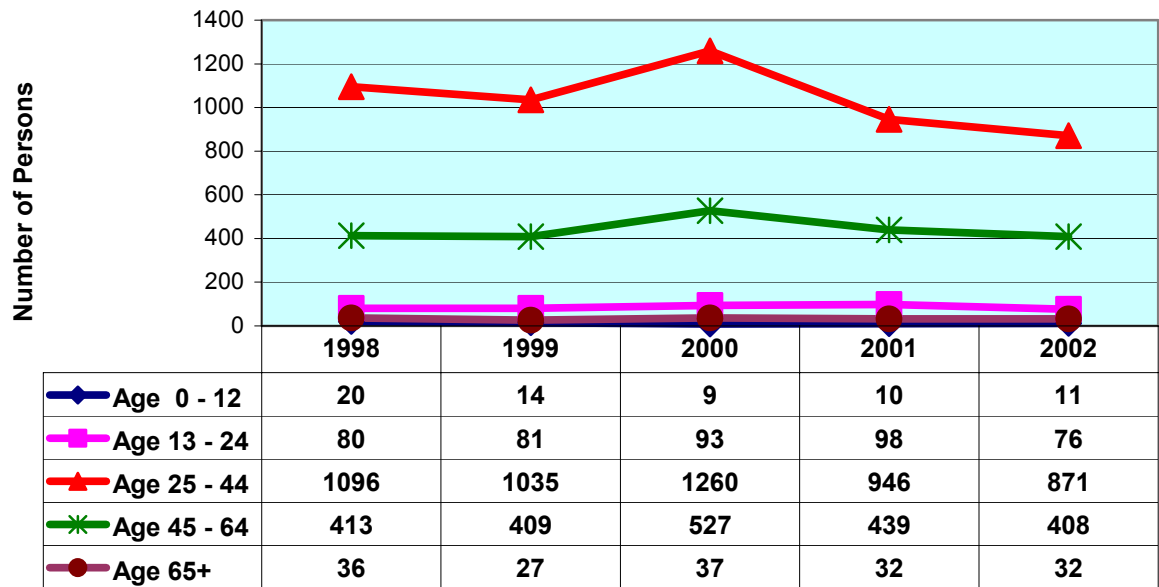
The largest number of diagnosed cases 1998 through 2002 occurred in people 25 through 44 years of age, a time that is typically considered the most productive years of life. The highest rates for women also coincide with the childbearing years. The number of diagnoses was almost equal for males and females under the age of 25, but as age increased, the ratio of male to female cases increased. Overall for pediatric cases (those diagnosed under 13 years of age), the equality of rates can be attributed to the fact that most of the individuals were infected perinatally.

Table 13. Estimated Number of Persons Living with HIV/AIDS in New Jersey by Age Group

Age Group (as of 12/31/2004)	Male			Female			Total		
	No.	%	Rate	No.	%	Rate	No.	%	Rate
0 - 12	166	1	21	183	2	25	349	1	23
13 - 24	467	2	68	404	3	63	871	3	66
25 - 44	9,702	46	765	6,416	55	502	16,118	49	633
45 - 64	10,156	48	999	4,439	38	406	14,595	45	692
65+	552	3	121	261	2	39	813	2	72
Total	21,043	100	501	11,703	100	264	32,746	100	379

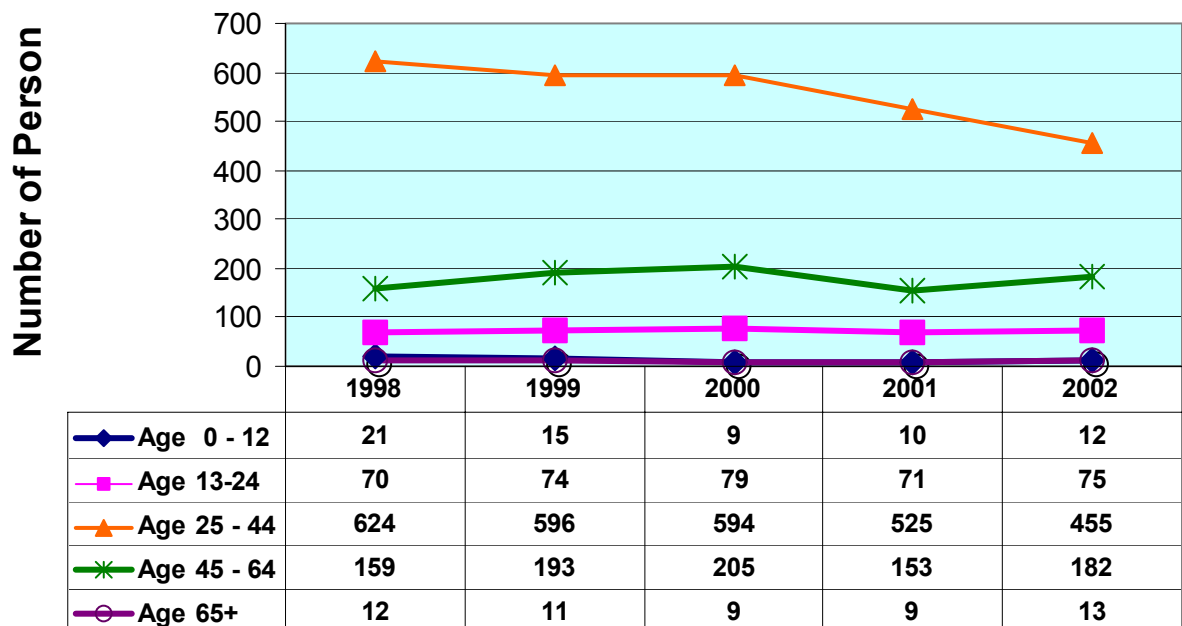
Note: Rates are per 100,000 population based U.S. Census July 2003 Bridged Population Estimates
Source: New Jersey HARS as of 12/31/2004

Figure 11. Estimated Number Adult/Adolescent Males Diagnosed with HIV/AIDS in New Jersey by Age Group and Year of Diagnosis



Source: New Jersey HARS as of 12/31/2004

Figure 12. Estimated Number Adult/Adolescent Females Diagnosed with HIV/AIDS in New Jersey by Age Group and Year of Diagnosis



Source: New Jersey HARS as of 12/31/2004

Special Age Categories

Two age categories are of special interest and represent a distinct priority population for planning: persons 13 to 24 years of age, and persons 50 years of age and older. Both of these groups represent only a small percentage of cases diagnosed in recent years; however, the percentage of newly diagnosed cases they account for has been slowly increasing (Table 14). Additionally, as the HIV infected population ages, a greater proportion of those living with HIV/AIDS are 50 years of age and older.

Table 14. Estimated Cases of HIV/AIDS for Persons Ages 13-24 and 50 and Over by Year of Diagnoses

Year	Age 13-24		Age 50 and over		All Ages	
	No.	%	No.	%	No.	%
1997	174	5	381	12	3,172	100
1998	150	6	319	13	2,531	100
1999	155	6	302	12	2,455	100
2000	172	6	413	15	2,822	100
2001	169	7	355	15	2,293	100
2002	151	7	348	16	2,135	100

Note: % is the percentage of all cases diagnosed that year.

Source: New Jersey HARS as of 12/31/2004

Adolescents (Persons 13 to 24 Years of Age)

Adolescence is a period of experimentation. The use of alcohol and drugs by adolescents may occur, as well as sexual experimentation. For this reason, it is important to review data for this group. Additionally, most of the infections diagnosed in this group are relatively new infections as opposed to infections diagnosed among people older than 24 years of age, where the diagnoses may occur ten years following infection.



Among persons 13 to 24 years of age, Black non-Hispanics represent 59 percent of cases with Hispanics accounting for 28 percent of cases and White non-Hispanics accounting for ten percent of the cases (Table 15). For cases of all ages, however, Black non-Hispanics represent the majority of HIV/AIDS cases followed by equal proportions of Hispanics and White non-Hispanics. This difference is due, in part, to the fact that Hispanics account for 18 percent of the State's population 13 to 24 years of age, but only 14 percent of the State's overall population.

Table 15. HIV/AIDS Among Persons 13 through 24 Years of Age at Diagnosis in New Jersey by Race/Ethnicity and Gender, Diagnosed in 2000-2002

Race/ethnicity	Males		Females		Total	
	No.	%	No.	%	No.	%
White non-Hispanic	24	9	25	11	49	10
Black non-Hispanic	161	60	150	67	311	63
Hispanic	77	29	43	19	120	24
Other/Unknown	5	2	7	3	12	3
Total	267	100	225	100	492	100

Note: Three years data is presented, as numbers are too small to present one year only.

a. Rates are not included due to the low number of cases in this population

Source: New Jersey HARS as of 12/31/2004

Exposure category is difficult to analyze due to the small number of cases. Similarly, the small number of cases among White non-Hispanic adolescents makes racial comparisons difficult to interpret (Table 16). Overall, however, sexual contact (male-to-male and heterosexual) accounted for the largest proportion of all exposures for all racial and ethnic groups.



Table 16. Persons 13 through 24 Years of Age Diagnosed with HIV/AIDS in New Jersey in 2000-2002 by Exposure Category, Race/Ethnicity and Gender

Risk Exposure	White non-Hispanic				Black non-Hispanic				Hispanic			
	Male		Female		Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
MSM	15	56	NA	NA	108	64	NA	NA	37	47	NA	NA
IDU	5	19	6	23	5	3	7	5	6	8	9	21
MSM/IDU	0	0	NA	NA	4	2	NA	NA	0	0	NA	NA
Heterosexual sex with ^a	5	19	19	73	35	21	125	91	29	37	31	74
Injection Drug User	0	0	3	12	2	1	3	2	1	1	4	10
Bisexual Male	NA	NA	0	0	NA	NA	2	1	NA	NA	1	2
HIV+ partner with other risk	1	4	8	31	9	6	56	41	11	14	15	36
Partner with unknown risk	4	15	8	31	24	15	64	47	17	22	11	26
Other/Unknown ^b	2	7	1	4	15	9	5	4	6	8	2	5
Total^c	27	100	26	100	165	100	137	100	78	100	42	100

Note: Three years data is presented, as numbers are too small to present one year only. Data are not presented for Asian/Pacific Islanders or Alaska Natives/American Indians due to the small number of cases. MSM=Male-to-male sex. IDU=Injection drug use.

a. This row is a total of all the heterosexual exposures listed.

b. The categories of other exposure and unknown exposure are combined due to the small number of cases in the 'other' category.

c. Column values will not add to the total as heterosexual risk is shown as a subtotal of all heterosexual risks and as separate sub categories.

Source: New Jersey HARS as of 12/31/2004.

Person 50 Years of Age and Older

Persons 50 years of age and older is a group often overlooked in planning for HIV services. The group is important to consider for two reasons: the immune system weakens with age so the body has less ability to fight infection, and people over 50 years of age and older tend to have more chronic conditions for which they take medications. These medications may interfere with HIV treatment.

Overall Black non-Hispanics account for more than half of new cases and for PLWHA, followed by White non-Hispanics and Hispanics (Table 17). This is a different pattern than can be found for other age groups where Black non-Hispanics comprise the largest percentage of cases, but Hispanics and White non-Hispanics account for almost the same percentage of cases (Table 6 and Figures 8 and 9). This is due, in part, to the fact that Hispanics comprise a smaller percentage of the population 50 years of age and older than they do in the general population (10% versus 14%). Similar to the HIV

infected population in general, Black non-Hispanic women are more disproportionately infected among newly diagnosed cases, as well as among PLWHA than are Black non-Hispanic men. Black non-Hispanic men represent a smaller percentage of newly diagnosed cases than PLWHA; the reverse is true for White non-Hispanic men.

The percentage of newly diagnosed men and women in this age group infected through IDU is lower than the percentage of persons infected through IDU among those living with HIV/AIDS in this age group. The percentage of newly diagnosed men and women in this age group infected through heterosexual sex is higher than the percentage of persons infected through heterosexual sex among those living with HIV/AIDS in this age group (Table 18). This may be due to the fact that injection drug users have a shorter life expectancy and make up a smaller percentage of the population over 50 years of age.

Table 17. Estimated Cases of HIV/AIDS Among Persons 50 Years of Age and Older in New Jersey by Race/Ethnicity and Gender

Race/ethnicity	Males				Females				Total			
	Diagnosed in 2002		Living in 2004		Diagnosed in 2002		Living in 2004		Diagnosed in 2002		Living in 2004	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
White non-Hispanic	73	31	1,623	26	19	17	414	17	92	26	2,037	23
Black non-Hispanic	116	49	3,456	56	70	62	1,595	65	186	54	5,051	57
Hispanic	40	17	1,028	17	22	19	407	17	62	18	1,435	16
Other/Unknown	6	3	97	2	2	2	45	2	8	2	142	2
Total	235	100	6,204	100	113	100	2,461	100	348	100	8,665	100

Note: Rates are not included due to the low number of cases in this population.

Source: New Jersey HARS as of 12/31/2004

Table 18. Estimated Cases of HIV/AIDS Among Persons 50 Years of Age and Older in New Jersey by Exposure Category and Gender

Exposure Category	Males				Females				Total			
	Diagnosed in 2002		Living in 2004		Diagnosed in 2002		Living in 2004		Diagnosed in 2002		Living in 2004	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
MSM ^a	43	18	1,250	20	-	-	-	-	43	13	1,250	14
IDU ^b	50	21	2,565	41	19	17	797	32	69	20	3,362	38
MSM/IDU	1	1	216	3	-	-	-	-	1	<1	216	<1
Heterosexual sex	102	43	1,535	25	84	74	1,390	56	186	53	2,925	33
Other/Unknown ^c	39	17	638	10	10	9	274	11	49	14	912	10
Total	235	100	6,204	100	113	100	2,461	100	348	100	8,665	100

Note: Rates are not included due to the low number of cases in this population.

a. MSM=Male-to-male sex.

b. IDU=Injection drug use.

c. The categories of other exposure and unknown exposure are combined due to the small number of cases in the 'other' category.

Source: New Jersey HARS as of 12/31/2004.

Survey of Childbearing Women (SCBW)



The SCBW is an anonymous unlinked survey, and is the State's only population based HIV/AIDS prevalence survey. It is important because it provides the prevalence

of HIV/AIDS in women who deliver live births each year and it is the best indication of the number of pediatric exposures available each year. The SCBW also provides data on the frequency of zidovudine (ZDV also known as AZT) therapy among pregnant women.

The greatest success story in New Jersey's fight against HIV/AIDS has been the reduction of new perinatal transmissions of HIV. Following a nationwide trend (and continuing a trend started with the publication of guidelines by the United States Public Health Service on the use of zidovudine in 1994), perinatal transmission in New Jersey has decreased

dramatically. The introduction of ZDV along with the declining HIV prevalence rate among childbearing women, led to a 95 percent decrease in the number of pediatric cases of HIV infection from 1993 through 2002 (Table 22).

Each year, the State's approximately 120,000 newborns are routinely screened for inborn errors of metabolism. The process involves obtaining a blood specimen from each newborn. During the months of July through September, almost 30,000 excess blood samples remaining from the inborn errors of metabolism screening are analyzed for HIV through an anonymous, unlinked survey. Each specimen is assigned a study number that is associated with certain information about the infant and mother. There is no link between the study number and the identity of the mother or infant. A positive HIV antibody test for the infant is indicative of the presence of HIV in the mother. The results are analyzed and reported

by age of the mother. Since 1991, the results were also reported by the race/ethnicity of the mother. Since its inception, the proportion of women included in the SCBW, who were infected with HIV, has been less than one percent. In 2001, the percentage of women who tested positive for HIV (0.19 percent) was the lowest since 1988. Since 2001, the proportion of HIV infected women has fluctuated slightly.

The prevalence rate for HIV positive women under thirty years of age has declined more than the rate for women thirty years of age and older (Table 19), however, the rates for both groups decreased between 1991 and 2003. As with all other prevalence categories, there are disparities by race/ethnicity. Although the prevalence rates for all groups have decreased since 1991, the prevalence rate in 2003 for Black non-Hispanics

was more than three times the rate for Hispanics and over fifteen times the prevalence rate for White non-Hispanics. This disparity can be found in every county in New Jersey (Figure 14).

Figure 13. HIV Prevalence Among New Jersey Resident Childbearing Women, 1988-2003

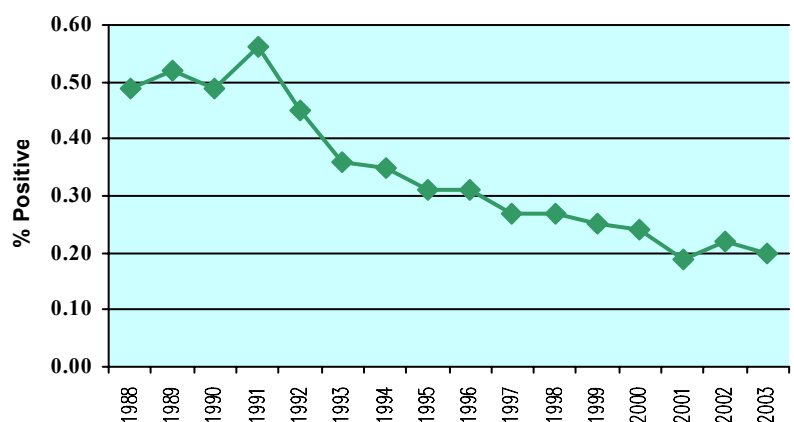


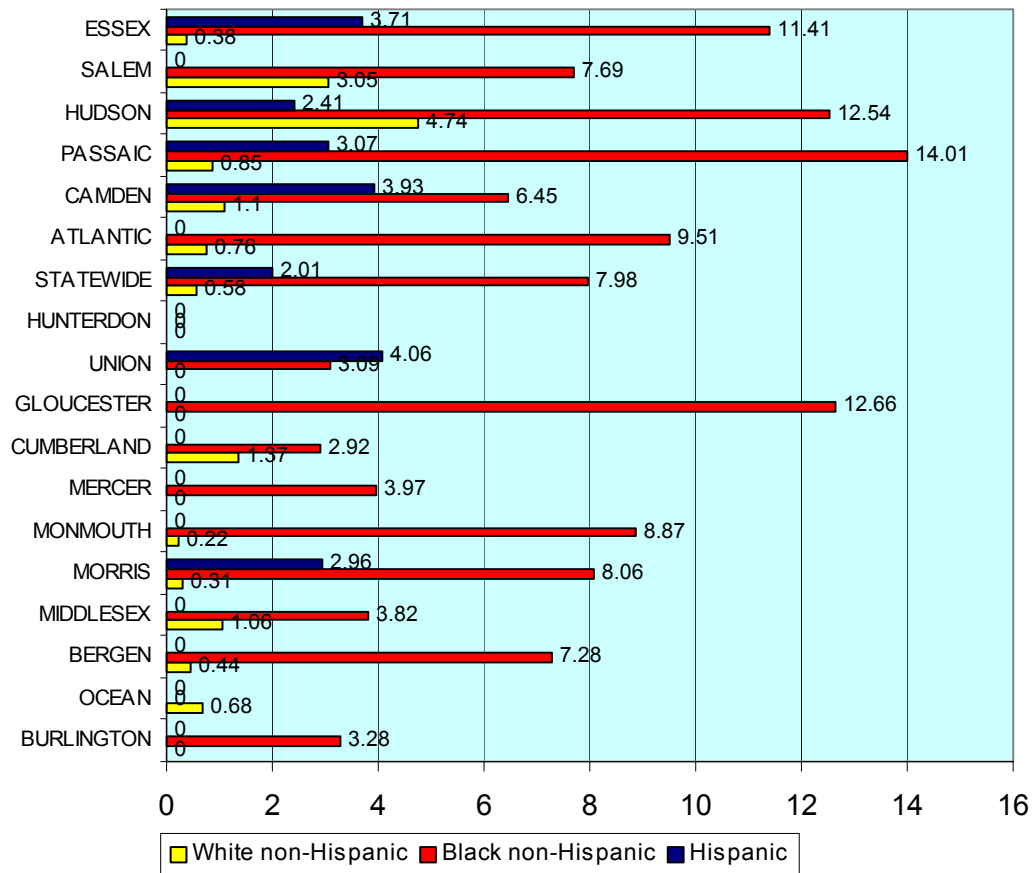
Table 19. HIV Prevalence Among New Jersey Resident Childbearing Women, 1991-2003

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
	%	%	%	%	%	%	%	%	%	%	%	%	%
Age Group													
<30	0.62	0.5	0.37	0.39	0.38	0.3	0.26	0.28	0.29	0.21	0.16	0.25	0.19
>=30	0.43	0.38	0.31	0.3	0.21	0.33	0.28	0.25	0.21	0.25	0.2	0.19	0.20
Race/Ethnicity													
White non-Hispanic	0.11	0.12	0.11	0.09	0.08	0.05	0.07	0.07	0.06	0.08	0.06	0.08	0.05
Black non-Hispanic	1.88	1.6	1.28	1.29	1.18	1.38	0.95	0.89	0.88	0.88	0.86	0.74	0.77
Hispanic	0.84	0.56	0.35	0.32	0.28	0.27	0.42	0.42	0.35	0.25	0.1	0.22	0.20
Total N HIV+	164	132	104	98	86	87	74	78	72	70	53	62	57
Total % HIV+	0.56	0.45	0.36	0.35	0.31	0.31	0.27	0.27	0.25	0.24	0.19	0.22	0.20

Note: Data is shown beginning in 1991 because that is the first year that race/ethnicity was collected.

Source: DHAS-SCBW

Figure 14. HIV Prevalence Rate Among New Jersey Resident Childbearing Women by County 2001-2003



Note: Rates are per 100,000 women with live births. Cape May, Somerset, Sussex and Warren counties are not shown as there were no HIV+ births in the sample for the years shown in those counties. The rate for Hunterdon County is rounded to zero although there were HIV+ cases during the years shown.
Source: DHAS-SCBW

Monitoring Zidovudine (also known as AZT) Therapy

Monitoring trends in the use of ZDV during the peripartum period provides a measure of implementation of the National Institutes of Health guidelines for ZDV therapy during pregnancy and delivery. This allows specific education and prevention programs targeting providers and pregnant women to be developed. The SCBW also provides an estimate of the number of mother/child pairs that should be identified through the surveillance system and provides the

opportunity for evaluation and implementation of the recommendations for reducing vertical transmission. The percentage of HIV infected samples that tested positive for ZDV use increased dramatically from 1994 to 2002 (Table 20). Although no samples were tested for ZDV in 2000, the percent of positive specimens for ZDV in 2001 and 2002 were the highest ever, reaching over 88 percent in 2002.

Table 20. Percentage Testing Positive for ZDV Among Sampled New Jersey Resident HIV+ Childbearing Women, 1994-2002

Year	Total Births In Sample	No. HIV+	No. Tested for ZDV	No. ZDV+	% ZDV+
1994	27,892	98	98	13	13.2
1995	28,120	86	86	41	47.6
1996	28,025	87	87	50	57.4
1997	27,782	74	73	51	69.8
1998	28,780	78	77	50	64.9
1999	28,709	72	70	42	60.0
2000	29,483	70	NA	NA	NA
2001	28,606	53	53	39	73.5
2002	28,704	62	61	54	88.5
2003	29,019	57	57	48	84.2

Note: This is a sample and represents approximately 25% of all exposures.
Source: DHAS-SCBW

Children Affected by HIV

Children are affected by HIV disease in two ways: they may be infected with HIV, or they are affected because they lose one or both of their parents to HIV disease. The latter may happen because the parent is too sick to care for the child, or the parent may die.

Pediatric Infections

Children who are diagnosed before they are thirteen years of age are considered to be pediatric infections. As the reporting of pediatric cases of HIV/AIDS is more current than cases for other age groups due to the continual monitoring of birth certificates and reports from facilities, pediatric infections through December 31, 2004 are presented in this report. Most of the 1,287 pediatric HIV/AIDS infections (Table 21) resulted from a child's mother being infected with HIV (perinatal transmission). Due to improvements in the screening of donated blood in 1985, transfusions have been virtually eliminated as a means of exposure. As with adult/adolescent infections, the highest proportion of cases occurred in Black non-Hispanic children (Table 21).

In 1993, the DHAS began monitoring pediatric exposures to HIV through Enhanced Perinatal Surveillance (described in Appendix A). Since that time over 3,200 exposures have been followed, and the number of annual pediatric infections has dropped over 90% (Table 22).

Table 21. Cumulative Pediatric HIV/AIDS Cases in New Jersey

Exposure Category	White non-Hispanic	Black non-Hispanic	Other/Not Reported	Total
Mother With/At Risk of AIDS	161	813	3	1,204
Hemophilia/Coagulation Disorder	10	7	0	22
Transfusion/Blood Components	15	3	0	21
Risk Not Reported/Other Risk	7	24	4	40
Total	193	847	240	1,287

Source: New Jersey HARS as of 12/31/2004

Table 22. HIV Pediatric Exposures^a in New Jersey by Current Status and Birth Year Since 1993

Birth Year	Infected ^b		Indeterminate ^c		Seroreverter ^d		Total Reported
	No.	(%)	No.	(%)	No.	(%)	
1993	75	21%	87	24%	194	54%	356
1994	55	17%	111	34%	163	50%	329
1995	50	16%	86	27%	185	58%	321
1996	38	13%	77	26%	180	61%	295
1997	32	11%	90	31%	164	57%	286
1998	23	7%	95	31%	191	62%	309
1999	14	6%	78	31%	159	63%	251
2000	14	5%	74	27%	183	68%	271
2001	8	4%	74	34%	138	63%	220
2002	4	2%	83	37%	139	62%	226
2003 ^e	5	3%	69	38%	110	60%	184
2004 ^e	3	2%	118	75%	36	23%	157

a. Child was exposed to HIV during pregnancy/delivery.

b. Child is known to be infected with HIV/AIDS.

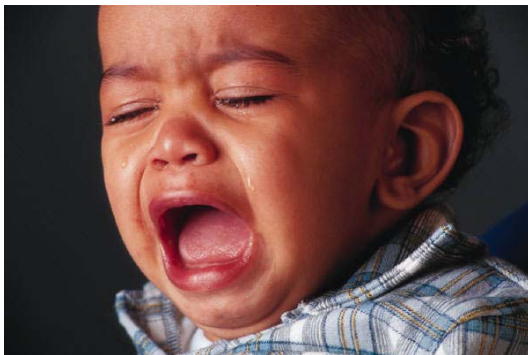
c. Child was exposed but actual status of infection is not known.

d. Child was perinatally exposed and proven to be uninfected.

e. Year 2003 and 2004 data are incomplete.

Source: New Jersey Enhanced Perinatal Surveillance as of 12/31/2004

Children Whose Mothers Have Died of HIV/AIDS



Based on the Survey of Childbearing Women, it is estimated that approximately 6,300 children were born to HIV infected mothers since 1988. As this data comes from an anonymous unlinked survey, it is not known how

many of these children have mothers who have died or how many births were to the same women.

As part of Enhanced Perinatal Surveillance, the HARS is matched against birth certificate files from 1989 to 2004. In this way mother child pairs are linked. Additionally, case reports for children are linked to their mothers, and siblings are noted when the data is available. As of December 31, 2004, there are an estimated 5,684 women in HARS with an indication that they have had at least one live birth. Of these, 1,492 have died leaving a child. For 870 of these women there is information to indicate that they had 1,267 children under the age of eighteen at the time of their death.

Comorbidities



The health care treatment for many persons living with HIV/AIDS, particularly the newly diagnosed, includes treatment for one or more comorbid conditions in addition to HIV/AIDS. Under the Ryan White CARE Act, comorbidity is very broadly defined. Comorbidity can include physical illnesses (such as tuberculosis, hepatitis, sexually transmitted infection), mental health problems (depressions or other mental illness), behavioral problems (substance abuse), and/or social problems (homelessness, incarceration).

To meet the multiple needs of people living with HIV/AIDS who have comorbidities requires attentive coordination of services as generally TB and hepatitis C morbidity accelerates with HIV co-infection.

Tuberculosis (TB)

A person co-infected with HIV and TB is classified as an AIDS case. According to the CDC, TB is a leading cause of death among people infected with HIV. The risk of developing TB disease is much greater for those infected with HIV. The HIV infection so severely weakens the immune system that people dually infected with HIV and TB have a 100 times greater risk of developing active TB disease and becoming infectious compared to people not infected with HIV. The CDC estimates that 10 to 15 percent of all TB cases and nearly 30 percent of cases among people ages 25 through 44 are occurring in HIV-infected individuals. Consequently, the CDC recommends that, "All people infected with HIV should be tested for TB, and, if infected, complete preventive therapy as soon as possible to prevent TB disease."

Extra Pulmonary TB and Pulmonary TB are included among the opportunistic infections that define AIDS. Men comprise 71 percent of the cumulative AIDS cases and 74 percent of TB/AIDS cases in New Jersey (Table 23). The rate of comorbid infection with HIV/TB is 5.7 per 100 of men with AIDS and 5 per 100 women with AIDS. Black non-Hispanics had the highest proportion of TB cases. Overall, 5.5 percent of all persons diagnosed with AIDS are co-infected with TB.

Table 23. Overview of Cumulative AIDS Cases and AIDS Cases with Tuberculosis in New Jersey, 2004

Gender	AIDS		TB/PULM TB and AIDS		TB Cases per 100 AIDS Cases
	No.	%	No.	%	
Male	33,867	71.0	1,940	73.7	5.7
Female	13,805	29.0	694	26.3	5.0
Race/Ethnicity					
White non-Hispanic	12,400	26.0	254	9.6	2.1
Black non-Hispanic	26,870	56.4	1,943	73.8	7.2
Hispanic	8,094	17.0	407	15.5	5.0
Asian non-Hispanic	167	0.4	22	0.8	13.2
Other/Unknown	141	0.3	8	0.3	5.7
Age Group at Diagnosis of AIDS					
0 – 12	757	1.6	21	0.8	2.8
13 – 24	1,497	3.1	88	3.3	5.9
25 – 44	34,946	73.3	2,014	76.5	5.8
45 – 64	9,792	20.5	476	18.1	4.9
65+	680	1.4	35	1.3	5.2
Total	47,672	100.0	2,634	100.0	5.5

Source: New Jersey HARS as of 12/31/2004.

Hepatitis C

According to the CDC, one quarter of HIV-infected persons in the United States are also infected with the hepatitis C virus (HCV). This figure may be even higher in New Jersey since much of the State's epidemic is related to injection drug use. Hepatitis C is one of the most important causes of chronic liver disease in the United States and it progresses more rapidly to liver damage in HIV-infected persons. Hepatitis infection may also impact the course and management of HIV infection. Because HCV is transmitted through the skin by puncture, co-infection with HIV and HCV is common (50%-90%) among HIV-infected injection drug users. For persons infected with HIV through

sexual exposure, co-infection with HCV is no more common than among similarly aged adults in the general population (3%-5%). Chronic HCV infection develops in 75-85 percent of infected persons and leads to chronic liver disease in 70 percent of these chronically infected persons. Hepatitis infection is an opportunistic infection in HIV-infected persons, but it is not considered an AIDS-defining illness. As highly active antiretroviral therapy (HAART) and prophylaxis of opportunistic infections increase the life span of persons living with HIV, HCV-related liver disease has become a major cause of hospital admissions and deaths among HIV-infected persons.

HIV and HCV comorbidity data is based on the total HIV and HCV diagnoses for persons hospitalized in, and discharged from New Jersey acute care hospitals in the year 2003. There were 8,175 hospital discharges that were HIV related and 13,586 hepatitis C related discharges. Each amounts to less than one percent (0.6%) of all hospitalizations in that year. Among the HIV-related hospitalizations, 1,656 or 20 percent, were also diagnosed with HCV. Unreported in these figures are those persons in the State who either are living with HIV or have yet to be tested for HCV or those who were not admitted to a hospital during this time period (Table 24).

Table 24. HIV and Hepatitis C Diagnosis Among Hospital Discharges in 2003

HIV Status	No Hepatitis C		Hepatitis C		Total No.
	No.	%	No.	%	
No HIV	1,496,205	99	11,930	1	1,508,135
HIV	6,519	80	1,656	20	8,175
Total	1,502,724	99	13,586	1	1,516,310

Source: Uniform Billing hospital discharge file.
Division of Health Care System Analysis, New Jersey
Department of Health and Senior Services. Tabulation by DHAS

Progression from HIV to AIDS

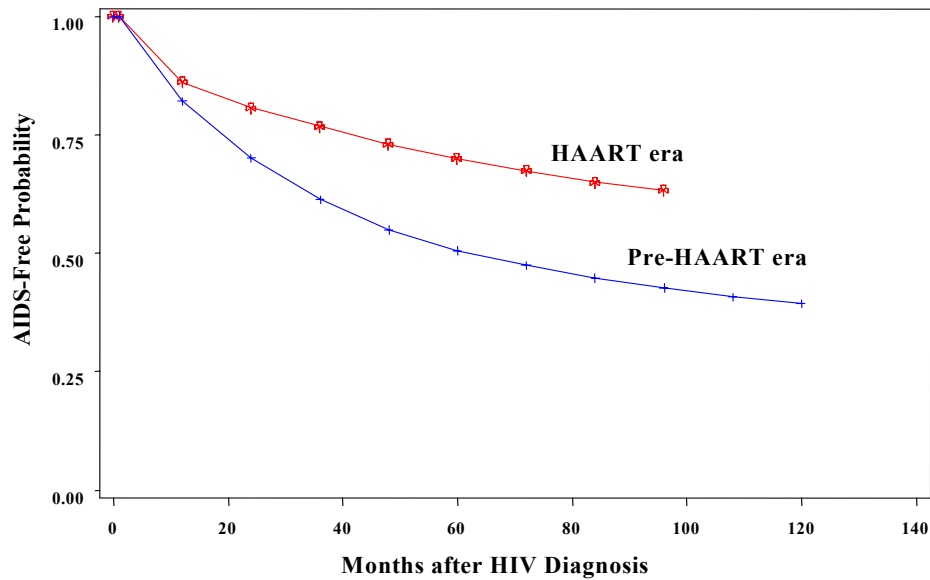
The era of Highly Active Antiretroviral Therapy (HAART), which began in 1996, has witnessed an improvement among HIV infected persons. The progression from HIV to AIDS has slowed and the quality of life of HIV/AIDS patients has improved.



To explore this further, we examined adult/adolescent HIV/AIDS patients' progression from HIV to AIDS from 1992 when HIV reporting began in New Jersey to 2002, the last year for which we have complete data. AIDS-Free survival rates after HIV diagnosis, and differences in progression from HIV to AIDS were analyzed to compare socio-demographic and HIV exposure categories, during the era of Highly Active Antiretroviral Therapy in New Jersey.

Figure 15 shows the AIDS-Free survival curves for those diagnosed between 1996 and 2002 (during the HAART era) compared to those diagnosed between 1992 and 1995 (Pre-HAART era). Those diagnosed during the HAART era have progressed to AIDS significantly slower than those diagnosed prior to the HAART era. This improvement is attributed largely to advancements in the treatment of HIV/AIDS patients from 1996 to 2002.

Figure 15. AIDS-Free Survival Curves: Pre-HAART (1992-1995) vs. HAART (1996-2002)



Note: Includes only patients with over a month of an observed progression from HIV to AIDS.

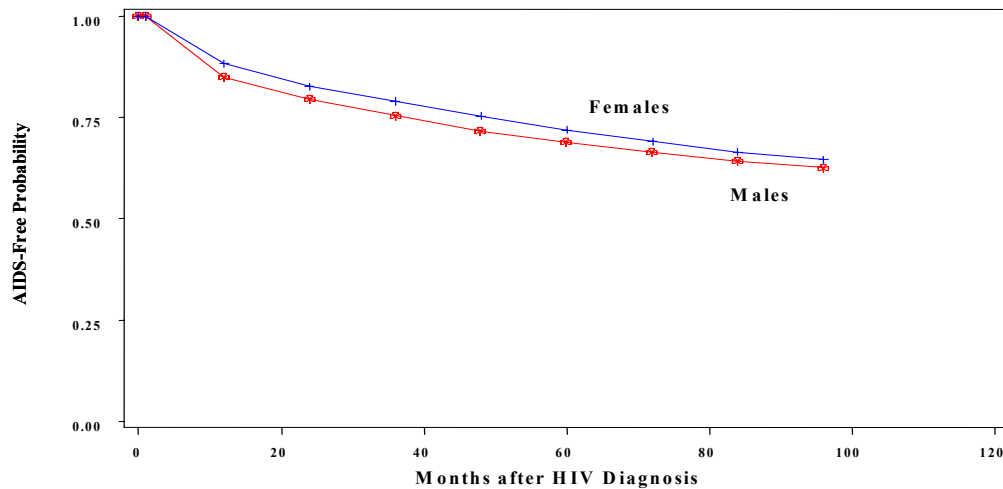
HAART= Highly Active Antiretroviral Therapy

Source: New Jersey HARS as of 6/30/2004

However, the improvement in HIV/AIDS therapy and AIDS-Free survival rates during the HAART era have not been uniform across socio-demographic and

exposure categories in New Jersey. The observed differences between males and females (Figure 16) are slight during 1996-2002.

Figure 16. AIDS-Free Survival Curves by Gender: 1996-2002



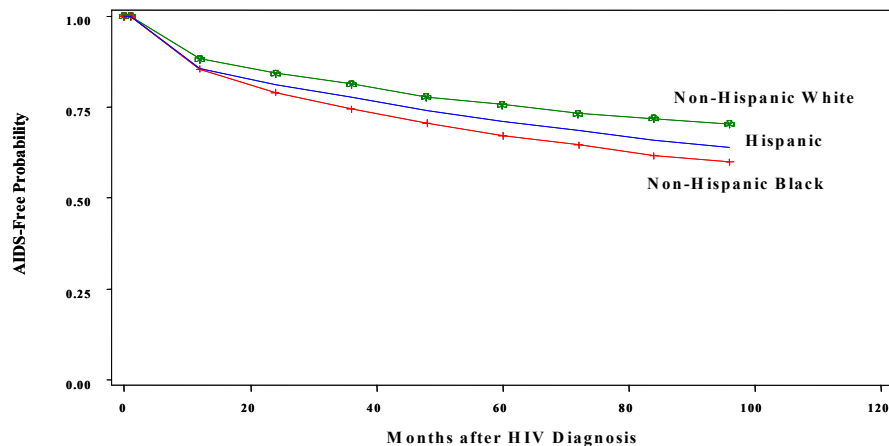
Note: Includes only patients with over a month of an observed progression from HIV to AIDS.

Source: New Jersey HARS as of 6/30/2004

By contrast, ethnic differences in progression from HIV to AIDS (Figure 17) show that Black Non-Hispanic and Hispanic patients progressed to AIDS significantly faster than White Non-Hispanic. Black Non-Hispanics experienced a considerably faster progression from HIV to AIDS than the other two ethnic groups. Ethnic differences in AIDS-Free survival curves may reflect, at least in part,

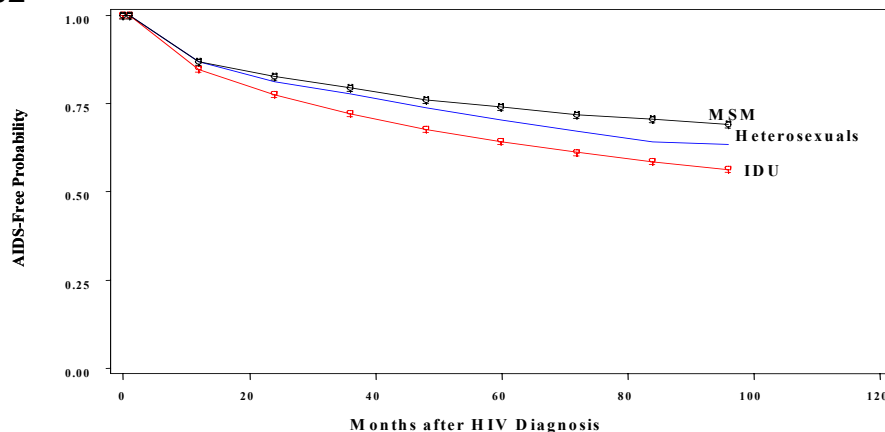
differences in access to medical care, as documented in the literature. Differences in AIDS-Free survival curves by major exposure groups (Figure 18) show that those whose HIV exposure was injecting drug use have progressed to AIDS significantly faster than those whose HIV exposure category was heterosexual sex or men having sex with men.

Figure 17. AIDS-Free Survival Curves by Race/Ethnicity: 1996-2002



Note: Includes only patients with over a month of an observed progression from HIV to AIDS.
Source: New Jersey HARS as of 6/30/2004

Figure 18. AIDS-Free Survival Curves by Exposure Category, both sexes: 1996-2002



Note: Includes only patients with over a month of an observed progression from HIV to AIDS.
Source: New Jersey HARS as of 6/30/2004

Mortality

Causes of Death

The HIV disease is the third leading cause of death for Black males in the State, the nineteenth leading cause for White males, and the eleventh leading cause for all males (Table 25). The HIV disease is the fifth leading cause for Black females, the twenty-fifth leading cause for White females, and the fifteenth leading cause of death for females overall (Table 26). Among all persons 25 to 44 years of age HIV disease is the fourth leading cause of death, but for Blacks 25 to 44 years of age, HIV disease is the first leading cause



of death (data not shown). When AIDS was first diagnosed in the early 1980s, the life expectancy of a person with the disease was measured in months. Since the advent of the highly active antiretroviral therapy (HAART), persons are living with HIV/AIDS for years, and in many cases are dying of diseases other than HIV.

Table 25. Ranking of Leading Underlying Causes of Death by Race and for Males in New Jersey in 2002

CAUSE GROUP (ICD-10 CODES)	Black		White		Total	
	Rank	No.	Rank	No.	Rank	No.
Heart Disease	1	1,093	1	9,128	1	10,396
Cancer	2	1,047	2	7,489	2	8,722
Stroke	4	229	3	1,328	3	1,586
Chronic Respiratory Disease	8	145	4	1,127	4	1,283
Non-Motor Vehicle Injuries	5	191	5	976	5	1,183
Diabetes	6	188	6	952	6	1,164
Septicemia	10	114	8	708	7	834
Influenza/Pneumonia	12	86	7	712	8	812
Kidney Disease	9	123	9	650	9	787
Motor Vehicle Injuries	11	96	10	454	10	574
HIV DISEASE	3	290	19	193	11	485
Liver Disease and Cirrhosis	15	50	13	393	12	447
Suicide	17	36	12	397	13	442
Alzheimer's Disease	22	23	11	406	14	432
Pneumonitis due to solids, liquid	18	27	15	272	15	303
Parkinson's Disease	28	8	14	288	16	302
Aortic Aneurysm	20	25	16	251	17	278
Signs and abnormal findings	14	51	18	211	18	265
Homicide	7	155	24	95	19	254

Note: Black and White categories include Hispanics. Total includes other races. 'All other diseases' category excluded from ranking.

Source: New Jersey Department of Health and Senior Services, Center for Health Statistics.

Table 26. Ranking of Leading Underlying Causes of Death by Race and for Females in New Jersey in 2002

CAUSE GROUP (ICD-10 CODES)	Black		White		Total	
	Rank	No.	Rank	No.	Rank	No.
Heart Disease	1	1,275	1	10,707	1	12,114
Cancer	2	1,074	2	7,898	2	9,105
Stroke	3	324	3	2,052	3	2,430
Chronic Respiratory Disease	8	122	4	1,471	4	1,602
Diabetes	4	275	5	1,070	5	1,368
Influenza/Pneumonia	10	100	6	1,055	6	1,161
Septicemia	6	187	8	952	7	1,152
Alzheimer's Disease	13	65	7	1,021	8	1,090
Kidney Disease	7	176	9	687	9	875
Non-Motor Vehicle Injuries	9	103	10	520	10	630
Pneumonitis due to solids, liquids	18	26	11	296	11	325
Signs and abnormal findings	14	37	12	274	12	318
Hypertension	12	66	15	244	13	317
Liver Disease and Cirrhosis	20	25	14	253	14	283
HIV DISEASE	5	200	25	76	15	277
Atherosclerosis	24	13	13	260	16	273
Benign, in situ, and Unspecified Neoplasms	16	29	16	226	17	257
Parkinson's Disease	28	5	17	216	18	222
Motor Vehicle Injuries	18	26	18	170	19	212
Perinatal Conditions	11	82	22	98	20	183
Aortic Aneurysm	22	20	19	158	21	180
Anemias	17	27	21	100	22	130
Other Infectious and Parasitic Diseases	23	16	20	107	23	127
Suicide	27	7	23	94	24	111
Congenital Malformations	20	25	24	79	25	108

Note: Black and White categories include Hispanics. Total includes other races. 'All other diseases' category excluded from ranking.

Source: New Jersey Department of Health and Senior Services, Center for Health Statistics.

Survival Analysis

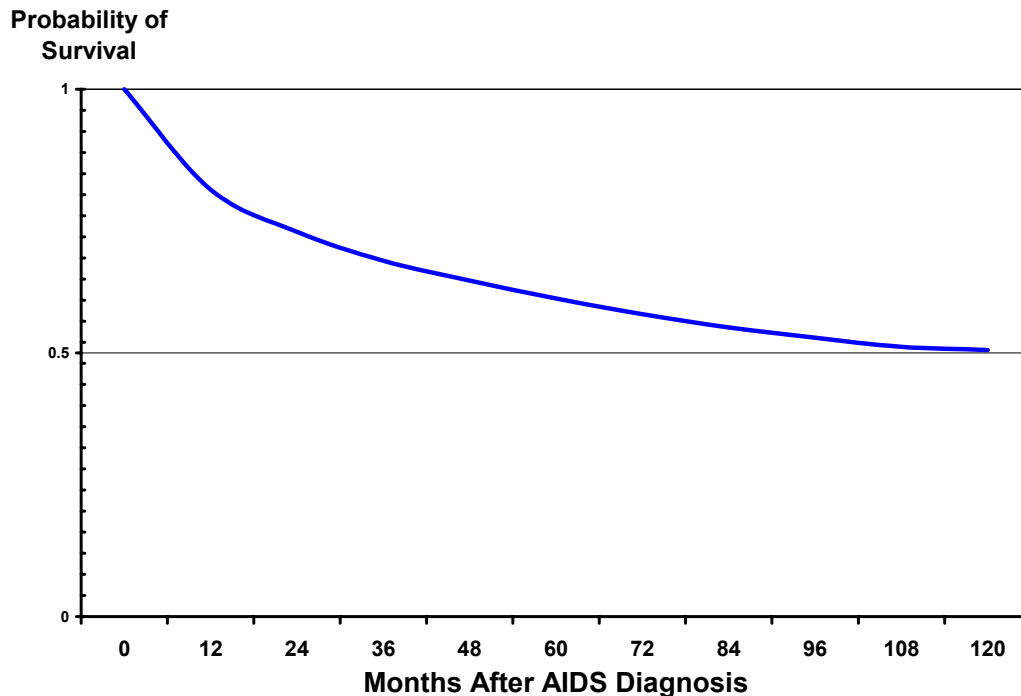
Survival times from AIDS to death were evaluated for New Jersey residents age 13 years and older at time of diagnosis who were diagnosed with AIDS between 1994

and 2002 (n=22,037). Cases diagnosed in 2003 and 2004 were excluded from the present analysis due to insufficient follow-up time since diagnosis. For patients who were

known to have died by December 31, 2004 (n=9,567, 43%) the survival time was calculated as the number of months from the date of AIDS diagnosis to the date of death. For patients who were not known dead as of December 31, 2004, the survival time was calculated as the number of months from the date of diagnosis to December 31, 2004. Seven percent of the study was excluded from the analysis as they had a concurrent date of AIDS diagnosis and date of death. As less than half (43%) of the sample had died by the study date, an average survival time could not be

calculated. This analysis found that 81 percent of the study population were alive one year after AIDS diagnosis; 73 percent after two years; 67 percent after three years and 60 percent were alive five years or more after AIDS diagnosis. About fifty-one percent of the sample were alive 10 or more years after AIDS diagnosis (Figure 19). Longer life after AIDS diagnosis coupled with the slower progression from HIV to AIDS described previously has led to greater longevity overall for persons diagnosed with HIV.

Figure 19. Survival in Months After AIDS Diagnosis for Cases Diagnosed 1994-2002

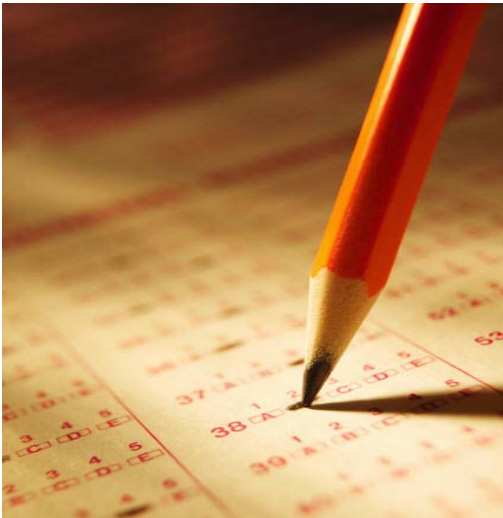


Note: Includes only patients 13 years or older at time of AIDS diagnosis and who were not diagnosed with AIDS at death. N=22,037

Source: New Jersey HARS as of December 31, 2004

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Indicators of Risk



Information related to the behavioral and social indicators of risk for HIV infection are necessary for the planning of HIV prevention, care, and treatment. This section of the Epidemiologic Profile includes information about the following indicators: sexual behaviors (such as the number and gender of partners), drug use behavior, and testing behaviors (such as where and/or why tested). The data were collected through mandated reports of disease or admission to drug treatment, or special surveys designed to measure HIV-related behaviors. Each of these methods has its limitations. Mandated reports do not provide information on at-risk, but not yet infected populations. Special surveys provide only information on the population questioned, and the risk behaviors are self-reported. A brief description of the methods used by each survey presented in this profile follows.

HIV Testing Survey (HITS)

The HITS project was developed by the CDC to assess HIV testing among members of three groups considered at high risk for HIV infection: male-to-male sex, injection drug users, and high-risk heterosexuals (HRH). Male-to-male sex and injection drug users were sampled in Newark and Jersey City; high-risk heterosexuals were sampled only in Jersey City. The sample included persons who had been tested for HIV (both HIV positive and HIV negative) and untested persons.

Supplemental HIV/AIDS Surveillance (SHAS)

The SHAS project was an interview study designed by the Centers for Disease Control and Prevention (CDC) to obtain supplemental descriptive information on persons with HIV/AIDS who were reported through routine surveillance. Data collected in SHAS included sexual and drug-using behaviors, health care access, HIV testing patterns, minority health issues, utilization of and adherence to therapies for HIV and HIV-related opportunistic illnesses, geographic differences, and disability related to HIV infection.

In New Jersey, the project began in 1993 at Jersey City Medical Center, Jersey City, and at St. Joseph's Medical Center, Paterson, in 2000. Clients at least 18 years old, who came in for care at the study sites,

and were reported as an HIV/AIDS case in New Jersey, were eligible to participate. Seventy-four percent of the eligible clients who were recruited for SHAS consented to participate. Data are presented for June 2000 through the end of data collection in April 2004.

Trained interviewers collected self-reported behavioral data from the SHAS respondents (n=571) from June 2000 through April 2004. Fifty-eight percent of the participants were men and 42% were women. The largest percentage of completed interviews was among Black, non-Hispanics (52%), followed by individuals of Hispanic (38%) and White, non-Hispanic origins (10%).

Additional descriptions of these data sources can be found in Appendix A. Direct comparisons between data from multiple sources are not possible because they represent differing populations and data collection methods. However, collectively, they provide useful indicators of risk behavior for the purposes of planning.

Sexual Behaviors

Sexually Transmitted Diseases

An estimated 15 million people each year in the United States are infected with a sexually transmitted disease (STD). It is important to include STD data in the reporting about HIV/AIDS because sexual contact is a primary exposure category for HIV/AIDS. The STDs are indicators of individual high-risk behavior and the presence of some STDs increases the

transmissibility of HIV. The most commonly reported STD in New Jersey is chlamydia (16,169 cases reported in 2003) (Table 25). It is asymptomatic in most cases and occurs most often in female adolescents who are physiologically more susceptible to this infection than are older women. If exposed to HIV, women infected with chlamydia are up to five times more likely to become infected with HIV. Gonorrhea is the second most commonly reported STD, (7,944 cases reported in 2003). Drug-resistant strains of this STD are becoming increasingly common. Unless successfully treated, gonorrhea can facilitate HIV transmission.²

The number and rate per 100,000 of cases of syphilis, chlamydia and gonorrhea increased dramatically from 2000 to 2001. Since 2001, the rates for chlamydia are the highest they have been in New Jersey for the last five years, although still below the national rates. The rates for gonorrhea have been below national rates for the past five years and are now comparable to pre 2001. However, the number and rate of syphilis infections has not declined.



The rate of syphilis in New Jersey has been slightly higher than the national rate since 2001, whereas before 2001, the rate was lower than the national rate (Table 27).

Table 27. Sexually Transmitted Disease (STD) Incidence and Rates in New Jersey and the United States for 1997-2003

	United States		New Jersey	
	Cases	Rate	Cases	Rate
Syphilis				
1999	36,867	13.3	803	9.9
2000	32,952	11.5	802	9.6
2001	33,527	11.7	1,040	12.2
2002	32,912	11.4	1,062	12.4
2003	34,270	11.9	1,089	12.7
Gonorrhea				
1999	361,244	130.5	7,852	93.9
2000	363,749	127.4	7,232	85.8
2001	362,376	126.9	8,921	104.8
2002	351,852	122.0	7,894	91.9
2003	335,104	116.2	7,944	92.5
Chlamydia				
1999	664,725	249.8	12,424	148.6
2000	712,803	249.7	10,814	128.2
2001	786,552	275.5	16,312	191.7
2002	834,555	289.4	14,164	164.9
2003	877,478	304.3	16,169	188.2

Note: Rates are per 100,000
Source: CDC

Condom Use

One of the major behaviors to prevent HIV transmission that is endorsed by many prevention programs is the use of condoms. For individuals not infected with HIV, condom use is a behavior that can protect them from becoming infected. For persons infected with HIV, consistent condom use can prevent them from contracting a different strain of HIV, as well as protect their partners from becoming infected. Therefore, it is important to look at condom use among HIV infected and uninfected individuals.

The frequency of condom use was observed to vary depending upon the type of sexual partner and gender (Tables 28 and 29). In HITS which surveyed individuals not infected with HIV, were more likely to use condoms with non-primary partners than with primary partners. Among heterosexual respondents, slightly less than half of males (48%) and a little more than half (55%) of females ever used condoms during vaginal sex, but this figure drops to less than 40% for men and less than 30% of women engaged in anal intercourse. In non-primary heterosexual relationships the vast majority, 80% of males and 85% of females, used condoms at least some of the time. Anal intercourse with non-primary partners was far less common than vaginal intercourse, however, when practiced, condom use was essentially the same among males (79%) but lower among females. None of the six female respondents ever used condoms during anal intercourse.



As was found among the heterosexual respondents, the MSM respondents tended to report greater use of condoms with non-primary partners than primary partners. Among MSM the role assumed in sexual encounters tended to influence condom use; nearly half (46%) always used condoms when assuming a receptive role, but this figure reduces to 31 percent when the respondent assumed the role of the insertive partner. In non-primary relationships, two-thirds of respondents used condoms whether they were the receptive or insertive partner.

In SHAS, a survey of HIV infected individuals, data suggests that for men (both MSM and men who have sex with women (MSW) condom use is more frequent with non-primary than with primary partners, whereas for women, condom use is more frequent with primary partners. Among male respondents (N=83) who reported sex with another male

(MSM), the percentage reporting consistent condom use with their last primary partner was similar during receptive anal sex (57%) and during insertive anal sex (51%). However, the percentage of MSM reporting consistent condom use with their last non-primary partner was lower during receptive anal sex (63%) than during insertive anal sex (85%).

Approximately half of the men who reported having vaginal sex with a primary female partner during the past 12 months also reported having sex with a non-primary partner. When questioned about sex with women, the percentage of men (83%) who reported condom use during vaginal sex with their last non-primary partner was higher than the percentage of men (76%) who reported condom use with their last primary partner.

The percentage of women respondents who reported condom use with their last non-primary partner during vaginal sex (28%) was lower than with a primary partner (67%). However, overall, a greater proportion of women (.92) reported sex with a primary partner than with a non-primary partner (.23) (Table 28).

Among both male and female SHAS respondents, there is a higher rate of condom use at last sex if the primary and/or non-primary partners' status is negative or unknown.

Table 28. Condom Use in Primary Relationships Among High-risk Heterosexuals in the Past 12 Months, HITS 2002

Frequency of Use	Male Respondents Type of Sex				Female Respondents Type of Sex			
	Vaginal		Anal Insertive		Vaginal		Anal	
	No.	%	No.	%	No.	%	No.	%
Never	49	52%	20	63%	29	45%	11	73%
< 1/2 time	17	18%	4	13%	12	19%	3	20%
About 1/2 time	14	15%	5	16%	8	13%	0	0%
> 1/2 time	4	4%	0	0%	4	6%	0	0%
Always	11	12%	3	9%	11	17%	1	7%
Total Male	95	100%	32	100%	64	100%	15	100%

Source: New Jersey HITS 2002

Table 29. Condom Use in Non-Primary Relationships Among High Risk Heterosexuals in the Past 12 Months, HITS 2002

Frequency of Use	Male Respondents Type of Sex				Female Respondents Type of Sex			
	Vaginal		Anal Insertive		Vaginal		Anal	
	No.	%	No.	%	No.	%	No.	%
Never	13	20%	4	21%	6	15%	6	100%
< 1/2 time	6	9%	0	0%	5	13%	0	0%
About 1/2 time	14	22%	3	16%	2	5%	0	0%
> 1/2 time	12	18%	7	37%	4	10%	0	0%
Always	20	31%	5	26%	22	56%	0	0%
Total	65	100%	19	100%	39	100%	6	100%

Source: New Jersey HITS 2002

Table 30. Condom Use in Primary and Non-Primary Relationships Among HIV+ Persons in Last Sex Encounter in the Past 12 Months, SHAS 2000-2004

Exposure Category	Used Condoms Usually or Every Time during Insertive Anal Sex		Used Condoms Usually or Every Time during Receptive Anal Sex		Used Condoms Usually or Every Time during Vaginal Sex	
	No.	%	No.	%	No.	%
MSM-Sex with Steady Partner ^a	20	51%	25	57%	NA	
MSM- Sex with Other Partner ^a	23	85%	12	63%	NA	
MSW-Sex with Steady Partner ^b	7	67%	*	*	74	76%
MSW-Sex with Other Partner ^b	8	80%	*	*	63	83%
WSM-Sex with Steady Partner ^c	NA		4	50%	88	67%
WSM-Sex with Other Partner ^c	NA		*	*	23	28%

a. N=83 reported having sex in the past 12 months; includes 56 Bisexual Men

b. N=152 reported having sex in the past 12 months; includes 16 Bisexual Men

c. N=145 women reported having sex in past 12 months

Note: WSM= Women who have sex with Men - NA= Not Applicable * Numbers not included due to small cell size

Source: New Jersey SHAS June 2000-April 2004

Number of Sexual Partners

Ninety-two percent of the HITS respondents reported that they were sexually active in the year prior to the survey. When queried about the number of sex partners (other than their primary sex partner) they had in the last 12 months approximately half of the respondents indicated that they had not had a sexual partner other than their primary partner (Table 31). Of the respondents who had at least one sex partner other than their primary sex partner, the most frequent number of sex partners cited by women was one and by men two-three. A minority of respondents, less than 20 percent, mentioned having had more than four sex partners other than their primary sex partner in the past 12 months.

Table 31. Number of Non-Primary Sexual Partners by Gender, HITS 2002

Number of Non-Primary Partners In the Last 12 Months	Male		Female	
	No.	%	No.	%
0	132	49%	41	51%
1	29	11%	17	21%
2 – 3	57	21%	10	12%
4+	49	18%	13	16%
Total	267	100%	81	100%

Source: New Jersey HITS 2002



SHAS respondents were asked how many sex partners, including their primary and non-primary partners they had in the past 12 months. Among men who reported sex with a man, the proportion (.40) that had more than one sex partner in the past 12 months is higher than the proportions for men who reported sex with women only (MSW) and bisexual men (.28 and 0.30 respectively, Table 32). Among men who reported having no sex in the past 12 months, the proportion who have sex with women only (.36) and the proportion who have sex with men only (.33) is higher than the proportion of bisexual men (.16).

Among female SHAS respondents, only 12 percent reported sex with two or more partners and nearly half (48%) reported having only one sex partner in the past 12 months. This suggests that women who participated in SHAS were more likely to be in a monogamous relationship or abstinent.

Table 32. The Number of Sex Partners in the Past 12 Months by Self Reported Sexual Behavior, Males and Females, SHAS 2000-2004

Exposure Category	Respondents	1 Sex Partner In Past 12 Months		≥2 Sex Partner in Past 12 Months	
	No.	No.	%	No.	%
MSW Only ^a	211	78	37%	58	28%
MSM Only ^b	42	11	26%	17	40%
Bisexual Men ^c	78	31	40%	24	30%
Total of Men	331	131	40%	97	29%
Women ^d	240	116	48%	29	NA

Source: New Jersey SHAS June 2000-April 2004

Note: Values may not sum to totals because of participants who did not have sex during the past 12 months.

a. Men who have sex with women only

b. Men who have sex with men only

c. Men who have sex with men and women

d. Include women who have sex with men and women

Men who Have Sex with Men and Women

Based on data reported to the HARS through December 31, 2004, one third of the estimated men living with HIV/AIDS who reported having sex with another man, also reported having had sex with a woman. A greater proportion of non-Hispanic Black men diagnosed with HIV/AIDS reported sex with both men and women (42%) than do Hispanics (37%) and non-Hispanic Whites (21%). This may account for the higher rate of infection among Black women. The proportion of men who have sex with men and women is the same for all ages. The

phenomenon of men who have sex with both men and women can also be seen in data collected in the SHAS. The SHAS survey collected self-reported data about bisexual relationships. Approximately one quarter of male participants reported bisexual behavior. This was true for all racial and ethnic groups (Table 33). Based upon responses to the HITS survey, 15 percent of the 118 MSM reported that they had sex with a female during the previous year (data not shown).

Table 33. Self-Reported Sexual Behaviors Among Men in SHAS

Self Reported Sexual Behavior	White non-Hispanic		Black non-Hispanic		Hispanic		Total ^a	
	No.	%	No.	%	No.	%	No.	%
MSM Only ^b	2	7%	13	8%	27	19%	42	13%
MSW Only ^c	18	67%	111	68%	81	58%	210	64%
Bisexual Men ^d	7	26%	40	24%	31	22%	78	24%
Total	27	100%	164	100%	139	100%	330	100%

a. Excludes 1 respondent of other race/ethnicity

b. Men who have sex with men only

c. Men who have sex with women only

d. *Men who have sex with men and women

Source: New Jersey SHAS June 2000-April 2004

Illicit Drug Use



A major factor in the prevention, care and treatment of HIV is illicit drug use. Sharing of injection drug equipment can transmit HIV and hepatitis. In addition, illicit drug use, as well as, the use of alcohol, is linked with unsafe sexual activity. Drug users may exchange sex for drugs and some people think that drugs make sex more enjoyable. Most importantly, drug use (including alcohol) decreases the chances that people will protect themselves during sexual activity.

Illicit drug use can lead to other problems for people who are taking HIV/AIDS medication.^{3,4} People who use illicit drugs are less likely to take all of their medications, which can cause treatment failure and may lead

to the transmission of HIV that is resistant to some of the drug therapies available. Additionally, people who use illicit drugs and take prescribed medications for HIV may develop adverse drug reactions which are potentially life threatening.

Admissions to Drug Treatment

There were 52,904 people admitted to drug treatment in 2003. Of these, approximately half (52 percent) were White non-Hispanic and one-third (32 percent) were Black non-Hispanic (Table 34). Heroin was the primary drug of choice for 24,685 persons or almost half (47 percent) of the total admissions in 2003. By race/ethnicity, persons admitted for heroin use were primarily White non-Hispanic (43.5 percent) and Black non-Hispanic (37.8 percent). The second most frequent primary drug on admission in 2001 was alcohol with 15,756 admissions. More than two-thirds (67.4 percent) of the admissions for alcohol treatment were White non-Hispanic and about one-fifth (21.1 percent) were Black non-Hispanic.

Table 34. Primary Drug Use by Race/Ethnicity for New Jersey Resident Admissions to Drug Treatment in 2003

Race/ Ethnicity	Alcohol		Cocaine		Heroin		Marijuana		Others		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Black non-Hispanic	2,676	18	2,334	43	9,022	36	2,369	39	263	12	16,664	32
Hispanic	1,603	11	649	12	3,968	16	1,037	17	141	7	7,398	14
White non-Hispanic	9,908	67	2,285	42	11,095	45	2,330	39	1,632	78	27,250	52
Other	519	4	189	4	600	2	224	4	60	3	1,592	3
Total	14,706	100	5,457	100	24,685	100	5,960	100	2,096	100	52,904	100

Source: New Jersey Department of Health and Senior Services, Division of Addiction Services

Self-Reported Drug Use

The SHAS participants were questioned about injection drug use history, and use during the past year. Approximately a third of the respondents indicated that they had injected drugs. A significantly higher proportion ($p \leq .05$) of White, Non-Hispanic (48%) respondents reported a history of injection drug use than Hispanic (27%) and Black, Non-Hispanic (31%) participants.

Among participants who reported a history of injection drug use (176), 75% (131) reported that they used a needle or syringe that they knew or suspected had been used before by someone else. There was a significant difference among men and women in needle-sharing partners. The proportion of men who reported that they shared needles with friends (.68) was significantly higher than women (.35). The proportion of women (.47) who reported sharing

with lovers was significantly higher than men (.10) (data not presented).

Any history of injection drug use increases the risk for HIV infection, however, having injected drugs within the past 12 months is an indication of recent risk for acquiring or transmitting HIV. When questioned about recent injection drug use, a little over a quarter of all respondents admitted that they injected drugs in the past year. There was no significant difference among race/ethnicity groups in using injection drugs during the past 12 months, however there is an indication that White, non-Hispanic and Hispanic respondents are more likely to be recent injection drug users than are the Black non-Hispanic respondents. Due to the small number of injection drug users in the prior year ($N=48$) it is difficult to draw further conclusions about differences in racial/ethnic groups (Table 35).

Table 35. Injection Drug Use History By Race/Ethnicity, 2000-2004

Injecting Drug Use	White non-Hispanic N = 58		Black non-Hispanic N=295		Hispanic N= 217		Total ^a N= 567*	
	No.	%	No.	%	No.	%	No.	%
Ever								
Yes	28	48	91	31	57	27	176	31
No	30	52	204	69	157	73	353	68
Past Year								
Yes	9	32	23	25	16	28	48	28
No	19	68	68	75	41	72	128	72

a. Total N= 567 excludes three respondents of Other Race/Ethnicity and one respondent who refused to answer.

Source: New Jersey SHAS June 2000-April 2004

The use of alcohol and illicit drugs was investigated in the 2002 HITS survey. Of the 348 survey

participants, half indicated that they had consumed five or more alcoholic drinks on a single day during the

month prior to the survey. During the thirty days prior to completing the survey, five or more drinks were consumed on an average of 11 days.

In this discussion of illicit drug use, it is important to keep in mind how persons were selected for study inclusion. Persons were sampled based upon high-risk group: IDU, MSM or HRH. Consequently, by definition all IDU participants had a history of illicit injection drug use, while MSM and HRH survey participants may or may not have used illicit drugs. For purposes of this analysis the IDU population will be discussed separately from the combined MSM/HRH group. Overall, there were 348 participants including

122 in the IDU risk category and 226 in the combined MSM/HRH group. By definition, all of the IDU had a history of illicit drug use; while half (49%) of the MSM/IDU group reported using illicit drugs (data not shown).

Of the persons who have ever utilized drugs, over 80% of the MSM/HRH and all of the IDU reported having done so in the past year. Use of both non-injection and injection drugs was assessed and the results appear in Tables 36-37. Overall, the most frequently mentioned non-injection drug used was marijuana, however among the IDU heroin was reported most frequently as the drug of choice.

Table 36. Type and Frequency of Injection Drug Used in Past 12 Months by Injection Drug Users, HITS 2002

	Never %	3 or less Days/ Month %	1-3 Days/ Week %	4 or More Days/ Week %
Heroin/Cocaine	20	15	20	45
Heroin	11	4	10	75
Cocaine	47	22	12	19
Amphetamines	97	1	1	1

Note: N=122

Source: New Jersey HITS 2002

Only one of the MSM/HRH respondents admitted to ever having injected drugs, therefore this

Table 37. Type of Non-injection Drug Used in Past 12 Months, by Risk Group, HITS 2002

	MSM/H RH % N=230	IDU % N=122	Total % N=348
Cocaine	18	19	18
Marijuana	50	13	26
Heroin	2	23	16
Downers	1	19	12
Crack	3	11	8
Pain killers	3	10	7
Ecstasy	15	2	7
Poppers	4	1	2
Speed	2	1	2
Hallucinogens	2	<1	1
Other	0	1	1

Note: MSM/HRH=Men who have sex with men/high-risk heterosexuals - IDU=Injection drug use

Source: New Jersey HITS 2002

discussion will be limited to the 122 IDU risk group respondents. The average age at which the

respondents began injecting drugs was 23 years, with a range from 9 to 40 years. Overall, it was found that heroin was injected by the majority of the respondents (75%) 4 or more times a week and a combination of heroin/cocaine was used by nearly half (45%) of the respondents 4 or more times a week. A third (31%) of the respondents indicated that they reused needles, which had been previously used by others, and 38% reported sharing the same cooker, cotton, rinse water or other equipment when shooting up.

HIV Testing Behavior

Testing Sites

In HITS, the HIV testing sites where the most recent test was conducted varied by the exposure category. Among the MSM, the most frequently cited place for the last HIV test was a physician's office, followed by a public clinic (Table 38). For HRH the most frequently cited place was STD clinics followed by a private physician's office (Please note: at the time of the interview, clients were not at the STD clinic for HIV testing). For IDU the most frequently cited place was a drug treatment program, followed by a counseling and testing site, public clinic and correctional facility.

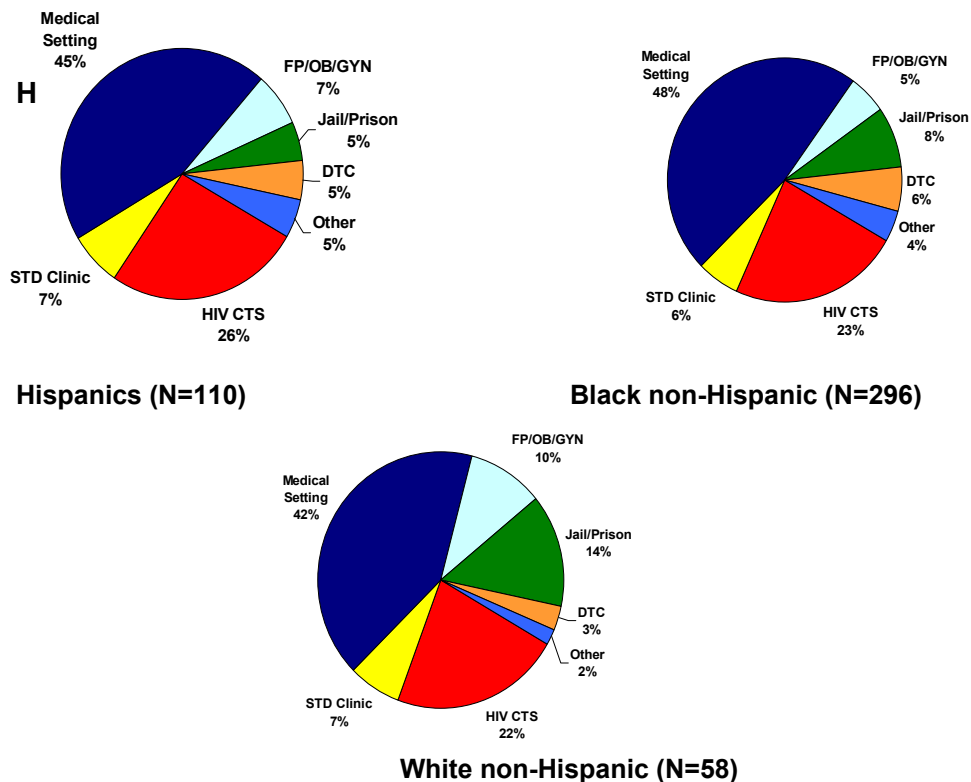
To obtain information regarding the use of HIV testing facilities, SHAS participants were asked where they were tested the first time they received a positive HIV test. Data show that respondents predominately utilize medical settings or HIV counseling/testing sites as primary sources for HIV testing. Those tested at an HIV counseling and testing site are likely to be voluntary test-seekers. Those tested in medical settings include test seeking persons, as well as persons who were first tested because they were ill. A higher percentage of White, Non-Hispanic women reported testing at a Family Planning/OB/GYN facility than their Black, non-Hispanic counterparts. This may suggest the need for increased awareness and outreach among minority women to promote access to and utilization of reproductive health services, or that minority women may be offered HIV testing in other settings. The availability of HIV testing in facilities such as STD Clinics, drug treatment centers and prisons helps to capture the populations that may not otherwise seek care or HIV testing in a medical setting or an HIV counseling/testing center. Statistically significant differences in HIV testing facilities were found for sex ($p < .05$) but not for race/ethnicity (Figures 20 and 21).

Table 38. Percentage of Persons Tested for HIV by Most Recent Test Site, HITS 2002

Site of Most Recent HIV Test	Risk Category			Total %
	MSM % (N=111)	HRH % (N=88)	IDU % (N=120)	
Private Physician	34	5	2	14
Hospital	9	0	6	4
ER	0	1	0	<1
HIV/AIDS Clinic	1	1	4	2
Public Clinic	12	1	12	9
Counseling/Testing Site	6	4	13	8
STD Clinic	7	29	2	12
Drug Treatment Program	0	0	23	8
Correctional Facility	0	2	13	50
Other/Missing	31	59	24	37

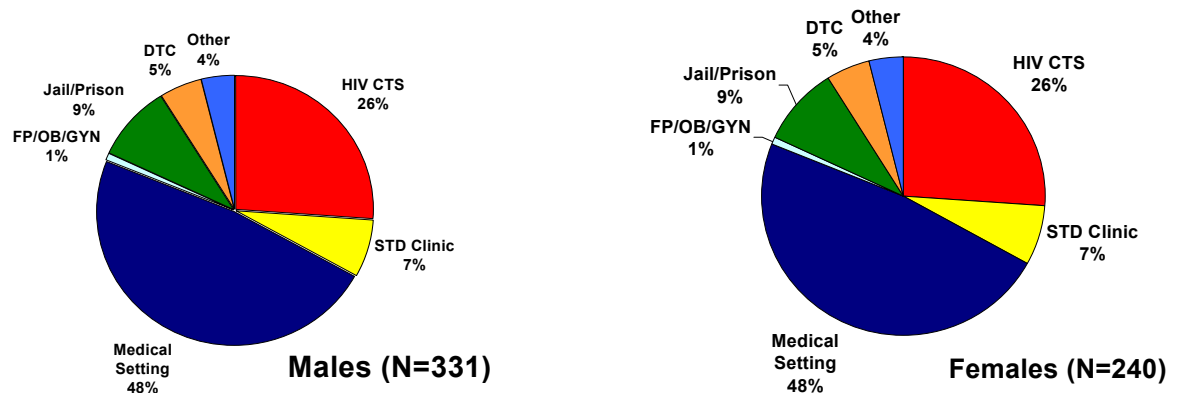
Note: MSM/HRH=Men who have sex with men/high-risk heterosexuals. IDU= Injection drug use.
ER=Emergency department - STD=Sexually transmitted disease
Source: New Jersey HITS 2002

Figure 20. Facility Where First HIV Positive Test Result Was Received by Race/Ethnicity



Note: DTC=Drug Treatment Center; HIV CT=HIV Counseling and Testing Site; STD=Sexually Transmitted Disease; FP/OB/GYN=Family Planning Clinic, Obstetrician/Gynecologist;
Total Respondents = 568 (exclude three respondents of other race)
Source: New Jersey SHAS June 2000-June 2003

Figure 21. Facility Where First HIV Positive Test Result Was Received by Gender



Note: DTC=Drug Treatment Center; HIV CT=HIV Counseling and Testing Site; STD=Sexually Transmitted Disease; FP/OB/GYN=Family Planning Clinic, Obstetrician/Gynecologist; Total Respondents=571
Source: New Jersey SHAS June 2000-April 2004

Reasons for Testing

Reasons for HIV testing were collected in SHAS. Illness was identified as the main reason all SHAS participants sought HIV testing (Table 39). Among the Black non-Hispanic population, illness was the most frequently cited reason for testing followed by curiosity or “wanted to know.” Curiosity was the primary reason Hispanics were voluntarily tested, followed by illness.

For White non-Hispanics, participating in a risky behavior was the major reason for seeking to be tested, followed by illness. Among those participants who received HIV testing at the recommendation or suggestion of a health or clinical care provider, the proportion of White non-Hispanics was larger than Black non-Hispanic and Hispanic populations (data not shown).

Table 39. Main Reason for Voluntary HIV Testing by Race/Ethnicity, 2000-2003

Main Reason	White non-Hispanic		Black non-Hispanic		Hispanic		Total ^a	
	No.	%	No.	%	No.	%	No.	%
Illness	12	25	82	32	60	28	155	32
Just Wanted to Know	9	19	78	30	48	44	137	29
Clinic or Routine	6	12	27	10	24	3	57	12
Risk perceived	21	44	70	27	39	25	130	27
Total	48	100	257	100	171	100	479	100

a. Total includes respondents who are Asian/Pacific Islander or Alaskan/Native American but the responses for these groups are not shown due to small cell sizes.

Source: New Jersey SHAS June 2000-June 2003

Testing by Risk Behavior Category

Of the respondents included in the HITS study, most had been tested for HIV at least once (86%) (Table 40). The IDU respondents (92%) and the MSM (78%) were more likely to have tested multiple times for HIV as compared to the HRH (48%).

Received Results

Overall, 77 percent of the respondents indicated that they had received the results of their HIV tests. The proportion of IDU and MSM respondents who received the results of their tests was approximately

9 out of 10 as compared with less than 4 of 10 HRH respondents.

The 33 respondents who had not received all of their test results were queried as to why they did not return for the results. The HRH respondents (N=21) cited that: they “expected the testing site to contact them” (33%), or that they were “too busy/forgot to get the results” (33%). The IDU (N=1, 100%) and the MSM (N=11, 36%) tended to attribute their behavior to “fear of the results” (data not shown).

Table 40. Number of Times Tested for HIV by Risk Behavior Category, HITS 2002

# of Times Tested per Participant	Risk Behavior Category						Total	
	MSM		HRH		IDU			
	No.	%	No.	%	No.	%	No.	%
0	7	6	39	36	2	2	48	14
1	19	16	21	19	8	7	48	14
2 – 5	53	45	39	36	77	63	169	49
6 – 10	22	19	7	7	28	23	57	16
More than 10+	17	14	2	2	7	6	26	8
Total	118	100	108	100	122	100	348	100

Source: New Jersey HITS 2002

Table 41. Results Received for Each HIV Test by Risk Behavior Category, HITS 2002

Received Results of Every Test	Risk Behavior Category						Total	
	MSM		HRH		IDU			
	No.	%	No.	%	No.	%	No.	%
Yes	105	89	49	45	113	93	267	77
No	1	1	19	18	6	5	26	8
Missing	12	10	40	37	3	2	55	16
Total	118	100	108	100	122	100	348	100

Source: New Jersey HITS 2002

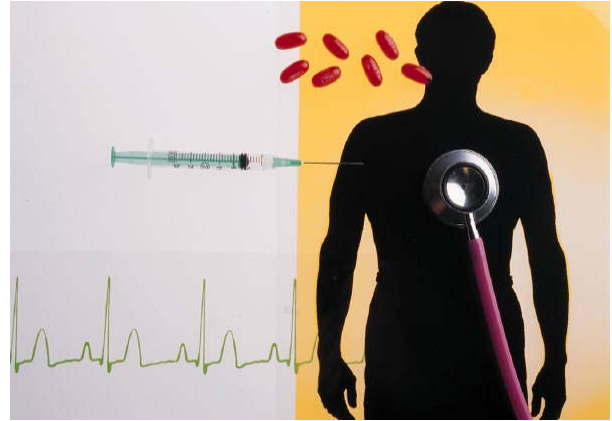
Indicators of Needed HIV Services

In order to plan effectively and fully understand the HIV/AIDS epidemic, it is necessary to examine the services needed and received by the HIV infected community. This profile will present data from two studies: SHAS (previously described) and from an analysis of unmet need based on laboratory tests ordered and prescription drug data. Data from SHAS assesses the medical and social service needs of clients in HIV care who were interviewed in their HIV care facility, whereas data from the unmet need analysis estimates the number of HIV infected individuals who are not in care.

Analysis of Unmet Need

For purposes of determining unmet need, individuals who had at least one HIV care-related antiretroviral drug, a viral load test and/or a CD4 test during 2003 were considered to have been in care in 2003. Unmet need was estimated for individuals reported to HARS as having been diagnosed prior to 2003 and still living as of 12/31/2003 (n=29,176). Those incarcerated at time of diagnosis (n=1,769) and those with unknown county of residence (n=9) are not included in the analysis (not included in the 29,176).

The 2003 unduplicated antiretroviral prescription claims data from Medicaid, AIDS Drug Distribution Program, General Assistance, Pharmaceutical



Assistance to the Aged and Disabled (PAAD) and Senior Gold were linked to HARS to identify those who received prescription drugs in 2003. Viral load and CD4 data in HARS, laboratory reports not yet updated in HARS, and those available from Early Intervention Programs were also matched to HARS to determine who had laboratory work ordered during 2003. Out of 29,176 individuals who were diagnosed prior to 2003 and still alive at the end of 2003, 14,421 patients (49%) had at least one indicator (antiretroviral drugs, a viral load test and/or a CD4 test in 2003) of HIV primary medical care in 2003.

Differences in unmet need were found by gender, race/ethnicity, current age, mode of transmission, HIV status, year of HIV diagnosis and residence (EMA) at time of diagnosis. In 2003, 60 percent of AIDS patients received primary care compared to 36% of HIV patients. A higher percentage of females than males

received primary medical care in 2003. Fifty-two percent of White non-Hispanics, 50 percent of Black non-Hispanics, and 46 percent of Hispanics were in care. The percentage of people in care has generally increased by year of HIV diagnosis. Fifty-eight percent of HIV/AIDS patients diagnosed in 2002 reported having primary medical care compared to only 45% in who were diagnosed in 1993.

The estimate of people in care represents minimum numbers in care. This is because many indications of care are not included in this analysis. These include medical visit data, and laboratory and prescription drug information paid for by private sources. Finally, mortality data and population movement may affect the estimated level of HIV-related primary medical care.

Survey of Services Needed and Received

Access to, and use of, health and social services within the health care delivery system is fundamental to the prevention and care of medical conditions surrounding HIV disease. SHAS respondents were asked if they needed health or social services relating to their HIV disease within the prior 12 months. Among all participants (n=571), the service needs that were reported with the greatest frequency include: HIV case management (69%), social services, such as insurance assistance or

financial counseling (63%), assistance finding a doctor for ongoing medical services (52%), assistance finding dental health services (46%), assistance finding meals or food (46%), transportation assistance (40%) and mental health counseling (35%). Chi-square analysis was performed to assess differences between men and women and across race/ethnicity with regard to services needed and received. The results of these analyses follow.

The percentage of men (72%) who reported needing HIV case management services during the past twelve months was significantly higher ($p=.03$) than the percent of women (64%). Of all men and women who reported needing case management services, nearly all of them (99%) received it. There were no significant differences by sex or racial/ethnic groups in the proportion receiving case management services.

The data show there is a need for HIV case management services among men and women of all race/ethnic groups interviewed in the SHAS project. Since SHAS was conducted in a clinic setting of the health care delivery system, case management services were reportedly received once the client accessed the care system. Information that identifies the need for, availability of, and access to, the health care delivery system is vital for a continuum of care for both sexes, as well as among all race/ethnic groups.

The percentage of men (50%) who reported they needed assistance finding dental services during the past twelve months was significantly higher ($p=.03$) than the percent of women (41%).

A significantly higher percentage of Hispanics (51%) than Black (45%) or White (33%) participants reported needing help finding dental health services. The percentage of men (93%) and women (87%) who reported receiving assistance in finding dental health services was similar ($p>.05$). Respondents in SHAS frequently needed assistance to find dental services, and once in the care system, more than 80% of each population and race/ethnic group received the assistance. Information that identifies the need for, availability of, and access to, the dental health care system is vital for a continuum of care for both sexes, as well as among all race/ethnic groups.

Throughout the SHAS survey, participants were asked questions assessing the need for, and use of social and clinical services. Data obtained from the SHAS interviews is helpful to identify missed opportunities for social and clinical services. When asked about receiving HIV preventive therapy, less than half of the men (42%) and women (44%) respondents reported receiving the Hepatitis B vaccine, and 47% of men and 46% of the women reported receiving medicines to prevent or treat PCP. This is suggestive of the need for treatment services to prevent comorbid and opportunistic infections. Additionally, there is a significant difference in the proportion of men and women who reported that they were receiving public assistance and, among men and women who had ever been arrested (Table 42).

Table 42. Percentage of SHAS Respondents Who Received Social and Clinical Services by Gender, 2000-2004

	Males N=331	Females N=240	$p<.05^a$
Receiving public assistance	66	80	*
Ever been arrested	58	48	*
Ever enrolled in drug/alcohol treatment	48	49	---
In past 12 months	49	46	---
Try to enter drug/alcohol treatment in past 12 months and could not get in	6	4	---
Waiting list too long	50	40	---
Did not meet admission criteria	15	50	---
Ever had a CD4 test	97	97	---
Ever had a viral load test	91	90	---
Ever had a Hepatitis B vaccine	42	44	---
Ever take antiretroviral medications	88	88	---
Ever prescribed meds to prevent or treat <i>Pneumocystis carinii</i> pneumonia	47	46	---
Ever had a skin test for tuberculosis (TB)	95	98	---
Ever prescribed TB medications	15	14	---
Ever been seen for medical care	100	99	---
Ever had a pelvic exam	---	98	---
Ever had a pap smear	---	94	---
Health Department or Care provider ever offer to tell your partner(s) that they may have been exposed to HIV so they could be tested	36	41	---

a. Based on chi-square analysis.

Source: New Jersey SHAS June 2000-April 2004

Successes and Future Challenges

New Jersey's response to the HIV/AIDS epidemic has yielded many successes. The greatest success in New Jersey's fight against HIV/AIDS is the reduction of perinatal transmission of HIV with a decrease from 11 percent in 1997 to three percent in 2001. Due to improvements in the screening of donated blood, transfusions have been virtually eliminated as an exposure category for HIV infection. When AIDS was first diagnosed in the early 1980s, life expectancy for individuals with the disease was measured in months. Now over 50 percent of those infected with HIV are still living ten years after date of diagnosis.

In the absence of an HIV vaccine or cure, prevention remains one of the most effective methods of containing the epidemic. Successful public health efforts have reduced the number of annual new infections, but despite the existence of strong proven prevention programs, individuals are still becoming infected with a preventable disease. This is particularly true in minority communities. Although the number of infections is down for Black non-Hispanic men and women, the rate of infection in this population is still significantly higher than in the White population.

Although surveillance data show that persons are living longer with HIV/AIDS, the older adult is often overlooked in targeting prevention. In

2002, 30 percent of newly diagnosed HIV/AIDS cases occurred in individuals 45 years of age and older and in 2004, 47 percent of persons living with HIV/AIDS are 45 years old or older. Many adults 45 years of age and older do not take precautions against HIV because they don't consider themselves to be at risk for infection. If they are infected, older adults often mistake the symptoms of HIV/AIDS with the signs of the normal aging process. Similarly, physicians may be less likely to consider the possibility of HIV infection in older adults, resulting in inadequate prevention and delayed diagnosis. This is a population that needs more attention.

The advent of highly active antiretroviral therapy has been a huge success in an area where there was previously little hope. However, analysis of reported cases of HIV/AIDS has shown that many infected individuals are not in care. Additionally, drug resistance threatens to erase the recent gains made in treating HIV. As strains resistant to HAART increase in the HIV infected population, new pharmaceutical agents must be readily available for use in these patients. Moreover, medical treatments must also be developed to meet the future needs that current drug therapies may not resolve. The DHAS continues to monitor changes in the epidemic using its surveillance system to look for resistant strains. However, the challenge will be to

maintain and modify this system as laboratory testing for these strains evolves.

Transmission of HIV, hepatitis and other blood-borne pathogens, by the sharing of contaminated needles, has given rise to syringe exchange programs in other states. Although some epidemiologic studies have shown that these programs decrease the transmission of HIV disease without increasing the rates of addiction, they remain controversial. Some people think it is inconsistent with public health policy to provide drug paraphernalia to addicts. A gubernatorial Executive Order has called for the establishment of up to three syringe exchange (SEP) programs in New Jersey. Guidelines have been developed and promulgated to eligible municipalities with a request for proposals to determine when an SEP may be implemented. Potential barriers to successful implementation are local law enforcement concerns, political will and a possible court challenge. The DHAS will continue to monitor and respond to the political challenges regarding this important issue.

While the availability and expansion of rapid HIV testing has revolutionized our ability to introduce testing to a greater population by informing participants of their status on the same day within 30 minutes, we must also offer more innovative programming to get African Americans and Hispanics to test sooner, long before they are symptomatic from the effects of possible HIV infection.

The DHAS believes that these challenges represent our greatest opportunity for improvement in advancing the fight against HIV. Turning the tide on reducing the spread of HIV remains a formidable challenge, and we must not underestimate the commitment needed. The value of this Epidemiologic Profile is that it provides the surveillance and research information necessary for the planning processes for HIV/AIDS prevention, education, care, treatment and HIV testing. To this end, the Division of HIV/AIDS Services invites your comments and suggestions for the use and improvement in future versions of the Epidemiologic Profile.

Appendix A - Major Data Sources

Enhanced Perinatal Surveillance (EPS)

Overview: The project was established to monitor the implementation and effect of the Public Health Service recommendations for preventing perinatal HIV transmission on pediatric HIV/AIDS trends, provide a data collection system that enables states to respond to selected requirements of the Ryan White CARE Act, and assist with timely evaluation of perinatal prevention efforts.

The project collects data using the HIV/AIDS case report form and collects additional information from supplemental records by the use of a medical record abstraction form. The enhanced surveillance methods used to identify HIV-infected mothers and their perinatally exposed children include matching of birth file to the HIV/AIDS surveillance registry and linking of mother-infant pairs. Information on HIV-infected mothers and their perinatally exposed children is abstracted from multiple sources: the maternal HIV record, prenatal care records, labor and delivery records, birth records, pediatric HIV records, birth and death certificates, and laboratory reports. The data that are collected include maternal and prenatal care, mother's HIV test history, prenatal and neonatal antiretroviral therapy, other interventions to prevent transmission, receipt of prophylaxis and treatment of the infant, appropriate follow-up care of the mother and child, and other interventions relevant to the evaluation of recommended public health actions to prevent perinatal HIV transmission. Infants identified through enhanced surveillance are followed up every six months until their HIV infection status is determined; if they meet the case definition, they are followed-up to determine their vital status.

Population: All HIV-exposed infants born during 1999 or later years and their HIV-positive mothers.

Strengths: The project is population based in most areas. Data from population-based areas are complete. In a study that included data from four population-based project

areas (Louisiana, Michigan, New Jersey, and South Carolina), 90% ascertainment of infants born to HIV-infected women was found when data were compared with data from the Survey of Childbearing Women. The project collects information on HIV-exposed infants every six months until HIV infection is diagnosed. Study sites are able to characterize trends in perinatal HIV/AIDS, monitor the implementation and effect of perinatal prevention guidelines, assess resource needs, assess missed prevention opportunities, and monitor the effect of prevention programs.

Limitations:

Data for the project rely upon the ability to identify an HIV-exposed infant and locate the supplemental medical charts needed to complete the abstraction form. The completeness of data elements relies upon the level of documentation in each of these medical records.

HIV/AIDS Reporting System

Overview:

Since 1992 HIV/AIDS has been a reportable disease in New Jersey. The surveillance system was established to monitor incidence and the demographic profile of HIV/AIDS; describe the modes of HIV transmission among persons with a diagnosis of HIV or AIDS; guide the development and implementation of public health intervention and prevention programs; and assist in the assessment of the efficacy of public health interventions.

Funding Source:

U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), National Center for HIV, STD, and TB Prevention, New Jersey Department of Health and Senior Services (DHSS) and the Division of HIV/AIDS Services (DHAS).

Mode of Administration:

The CDC designed case report forms are completed by providers, and/or New Jersey Department of Health and Senior Services staff, based on a review of medical records. Records are updated based on laboratory reports received from testing laboratories.

Population:	All persons whose conditions meet the 1993 CDC AIDS surveillance case definition or who are identified as HIV positive.
Strengths:	These data reflect the effect of HIV/AIDS on a community and the trends of the epidemic in a community. The HIV/AIDS surveillance has been determined to be >85% complete. The data include all demographic groups (age, race/ethnicity, gender).
Limitations:	Information is not available on persons who are HIV positive but not reported, or who have not been tested. Information on the mode of transmission of the disease is not complete, and follow-up on known positives may not be complete because they may move out-of-state after diagnosis. Because of the prolonged and variable period from infection to the development of AIDS, trends in AIDS surveillance do not represent recent HIV infections. Asymptomatic HIV-infected persons are also not represented by AIDS case data. In addition, incomplete HIV or CD4+ T-cell testing may interfere with the representativeness of reporting. Further, the widespread use of highly active antiretroviral therapy (HAART) complicates the interpretation of AIDS case surveillance data and estimation of the HIV/AIDS epidemic in an area. Newly reported AIDS cases may reflect treatment failures or the failure of the health care system to halt the progression of HIV infection to AIDS. The AIDS cases represent late-stage HIV infections.
Response Rate:	Population based system of reporting, mandated by both statute and regulation. Evaluations of completeness are consistently greater than 85 percent.
Demographic Data:	Gender, age and race/ethnicity.
Other Data:	Mortality status, mode of transmission, year of diagnosis and date of report.
Schedule:	Ongoing.
Geographic Estimates:	State, county and municipality.

HIV Testing Survey (HITS)

Overview:	Established to monitor HIV testing patterns by assessing reasons for seeking or avoiding testing, examining knowledge of state policies for HIV surveillance, and assessing HIV testing patterns among persons at high risk for HIV. Because HITS collects information from persons who are at high risk for HIV infection, this can be used to evaluate the representativeness of HIV surveillance data.
Survey Sample Design:	The HITS is an anonymous cross-sectional survey of populations at high risk for HIV infection. To recruit participants, the study is conducted at three venues: gay bars, street locations in areas of heavy drug use, and STD clinics. At a minimum, 100 persons in each population group are interviewed; thus, states have a minimum sample of 300 persons. Persons are interviewed regardless of HIV status, however, analysis is limited to persons not known to be HIV positive.
Targeted Population:	The core populations are MSM, IDU, and high risk heterosexual adults. Regardless of the venue, persons who are at least 18 years of age, able to give informed consent, and have been a resident of the State for at least one year are eligible for a HITS interview. In addition, the following behavioral criteria apply for each risk group: men at MSM venues are eligible if they have had sex with a man within the past 12 months; IDUs must have injected within the past 12 months; and high risk heterosexual adults who seek care at an STD clinic are eligible if they are at the clinic because of a suspected STD, have not been treated during the past 90 days, are not at the clinic because of referral or follow-up, and have not had homosexual sex within the past 12 months.
Strengths:	The survey collects valuable public health information about HIV testing attitudes, history and behaviors, as well as, knowledge about testing, and risk behaviors from population groups at high risk for HIV.
Limitations:	The HITS is a cross-sectional survey and relies on a convenience sample for participation. Information collected is self-reported and may be subject to recall

bias. Further, HITS data may not represent the entire high risk population of an area.

New Jersey Alcohol and Drug Abuse Data System (ADADS)

Overview:	Drug abuse treatment agencies throughout the State submit reports on treatment admissions and discharges to the State's Alcohol and Drug Abuse Data System (ADADS). The system collects data on drug use and sociodemographic characteristics of persons admitted to drug treatment.
Population:	All persons admitted to drug treatment in New Jersey.
Strengths:	Data are provided statewide and by county. Data include detailed information on drugs used, length of time used, and methods of use including injection. Data are available on the NJDHSS' website with links to other useful sites.
Limitations:	The system does not contain data on persons who use illicit drugs but do not enter treatment. It does not contain data on needle sharing for those admitted to drug treatment.

New Jersey Death Data

Overview:	New Jersey law requires the prompt filing of a death certificate by the proper authority in the event of a death occurring in the State. These certificates are submitted to the office of the State Registrar, where they are recorded and filed permanently. Statistics on deaths of New Jersey residents that occurred in other states are obtained through an exchange program sponsored by the national Vital Statistics Cooperative Program and added to the death file. Records of deaths occurring to non-residents of New Jersey were eliminated from the analysis. Deaths included in this report encompass all of the deaths to New Jersey residents that occurred within a calendar year. The records follow the standard certificate promulgated by the National Center for Health Statistics and include demographic information on the decedent, underlying cause of death and contributions of selected factors to the death. The
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underlying cause of death for deaths occurring prior to 1999 were coded in accordance with the International Classification of Diseases, Ninth Revision.

Years of Data Collected: New Jersey, along with Massachusetts, the District of Columbia, and several large cities that had efficient systems for death registration, was part of the first national death “registration area” created in 1880. New Jersey has continued to collect death records since that time, through a number of changes in the death record format and several versions of the classification system for cause of death. The standard death certificate that provided the data for this report was implemented in 1989. The certificate was revised in 2003 using a new format. The manual for coding the cause of death that had been in effect from 1979 through 1998, Ninth Revision was replaced by the International Classification of Diseases, Tenth Revision in 1999.

Population: The entire State population.

Strengths: Reporting of deaths is universal and complete. Standardized procedures and definitions are used throughout the country to collect and process death certificate data. The data are widely available and can be analyzed by demographic characteristics and geographic residence of individuals who are reported to have died with an underlying cause of HIV infection.

Limitations: Deaths from HIV infection as an underlying cause may be under-reported and as a consequence, information may be incomplete when using only the underlying cause of death. Death records may be less timely than reports to the HIV/AIDS reporting system.

Demographic Data: Gender, age, educational attainment, race/ethnicity, employment status, and marital status.

Schedule: Reported annually.

Geographic Estimates: State, county, municipality.

Sexually Transmitted Disease Case Reporting

Overview:	The CDC conducts surveillance to monitor the levels of syphilis, gonorrhea, chancroid, and, more recently, chlamydia, in the United States in order to establish prevention programs, develop and revise treatment guidelines, and identify populations at risk for STDs. States, local areas, and United States territories submit to the CDC (weekly, monthly, or annually) case reports of STDs that have met the respective case definition for the infection.
Funding Source:	United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), National Center for HIV, STD and TB Prevention and the New Jersey Department of Health and Senior Services.
File Content:	Case report forms include date of report, name, telephone number, address, age, birth date, pregnancy status, gender, race/ethnicity, disease type, name, address and phone number of the provider/physician, laboratory test and treatment.
Population:	All persons with a diagnosis of an infection that meets the CDC surveillance case definition for the infection and who are reported to a local health department.
Years of Data Collected:	New Jersey started to require reporting of venereal disease in 1917. New Jersey has continued to collect these reports since that time, through a number of format changes.
Response Rates:	Laboratories and providers are surveyed to determine compliance with regulations.
Demographic Data:	Gender, age and race/ethnicity.
Schedule:	Reported annually.
Strengths:	Sexually Transmitted Disease surveillance data can serve as a surrogate marker for unsafe sexual practices and/or demonstrate the prevalence of changes in a specific behavior (e.g., rectal gonorrhea). The STD data are widely available at the State and local level

and because of shorter incubation periods between exposure and infection, STDs can serve as a marker of recent unsafe sexual behavior. In addition, certain STDs (e.g., ulcerative STDs) can facilitate transmission and/or acquisition of HIV infection. Finally, changes in trends of STDs may indicate changes in community sexual norms (e.g., unprotected sex).

Limitations:

Sexually Transmitted Diseases are reportable, but requirements for reporting differ by state. Reporting of STDs from private sector providers may be less complete. Although STD risk behaviors result from unsafe sexual practices, they do not necessarily correlate with HIV risk. Trends in chlamydia infections may reflect changes in reporting and screening practices rather than actual trends in disease.

Supplemental HIV/AIDS Surveillance (SHAS)

Overview:

The Supplemental HIV/AIDS Surveillance (SHAS) is an adjunct to the AIDS case registry. This study consists of a cross-sectional interview that collects self-reported characteristics and behaviors of persons who are 18 years or older and have been recently reported with HIV infection or AIDS through routine surveillance to state or local health departments. Using a sample of AIDS cases, detailed information is collected on socio-demographic issues, sexual behavior and STD history, drug and alcohol use and treatment, and access to health and social services.

Eligible persons are recruited by using population-based or facility-based sampling methods, depending upon the area's HIV/AIDS case load. In areas with fewer than 500 persons eligible for interview, all persons are interviewed. Areas conducting population-based or facility-based sampling use three strategies in recruiting patients for interviews: 1) all persons reported to surveillance, 2) 30% random sample of HIV-infected MSM (i.e., if male-to-male sex is the predominant mode of HIV transmission) and 100% of HIV-infected persons from other risk groups, or 3) 50% random sample of all persons for whom male-to-male sex is not the primary mode of transmission.

Population:	The HIV-infected persons who are 18 years or older and reported to state or local health departments are eligible for a SHAS interview. Persons who are medically or mentally unstable are excluded.
Strengths:	The SHAS provides detailed information that is unavailable in other databases. A standardized questionnaire is used to gather self-reported information on the use of HIV care services and adherence to therapies. In some areas, the information is representative of all or nearly all persons reported as having HIV/AIDS.
Limitations:	The SHAS gathers self-reported data; thus, the data are subject to recall bias, particularly for questions concerning injection drug use and sexual history, and cannot be validated by another source of information. Because SHAS is a cross-sectional survey, changes in behavior over time cannot be examined.

Survey of Childbearing Women

Overview:	Beginning in 1988 and continuing annually since, the New Jersey Division of HIV/AIDS Services has conducted a study of the HIV status of newborns. This is an anonymous unlinked study done through testing of a blood specimen from infants born in the State. The HIV antibodies are present in the blood of a newborn in about the same concentration as in the blood of the mother. Therefore, the test of a newborn's blood is a good indicator of the presence of HIV in the mother and infant pair. The State's 120,000 newborns each year are routinely screened for inborn errors of metabolism. This involves obtaining a blood specimen from each newborn. During the months of July, August and September, excess blood remaining from the inborn errors of metabolism screening are analyzed for HIV through blinded, anonymous surveys. Since 1994, positive specimens have been tested for the presence of ZDV.
Population:	All women giving birth to a live infant whose routine specimens for inborn errors of metabolism testing are

received at the State Public Health and Environmental Laboratory during July, August, and September of each year.

Strengths: It is the State's only population based study of HIV prevalence.

Limitations: Women giving birth may not be representative of women in general. Limited information is available about the participants.

Tuberculosis Surveillance

Overview: All reporting areas (the 50 states, the District of Columbia, New York City, Puerto Rico, and other United States jurisdictions in the Pacific and Caribbean) report tuberculosis (TB) cases to the CDC by using a standard case report form, the Report of a Verified Case of Tuberculosis (RVCT). Reported TB cases are verified according to the TB case definition for public health surveillance. In 1993, the surveillance of TB was expanded to collect additional data to better monitor and target groups at risk for TB disease, to estimate and follow the extent of drug-resistant TB, and to evaluate outcomes of TB cases. The RVCT form was revised to obtain information on occupation, initial drug regimen, HIV test results, history of substance abuse and homelessness, and residence in correctional or long-term care facilities at the time of diagnosis.

Population: All persons whose case of TB meets the public health surveillance definition.

Strengths: The level of active TB disease reporting is more than 95% complete. As a result of the 1993 expansion of surveillance activities, jurisdictions have been able to evaluate the success of TB control efforts and monitor the status of the TB epidemic. Tuberculosis surveillance data provide areas with a minimum estimate of the level of HIV comorbidity.

Limitations: Data on HIV infection status of reported TB cases should be interpreted with caution, because these data are not representative of all TB patients with HIV infection. HIV

testing is voluntary, and some TB patients may decline HIV testing. In addition, TB patients who have been tested anonymously may not share their HIV test results with their health care provider. Further, testing may be influenced by other factors, such as the extent to which testing is focused on, or routinely offered to, specific groups.

Uniform Billing (UB-92)

- Overview:** The New Jersey Department of Health and Senior Services collects discharge records from hospitals. The UB-92 Hospital Discharge Data file contains medical abstracts, patient information and billing of all hospital discharges from acute care facilities.
- Population:** All discharges from hospitals statewide.
- Strengths:** Broad coverage.
- Limitations:** Data are largely administrative in nature and may not be adequate for detailed research. Medical and patient information may not be accurate.

United States Bureau of the Census Population Data

- United States Census Bureau:
 - U.S. Census Bureau July 1, 2003 Bridged Population Estimates;
 - U.S. Bureau of the Census, Population Division, September 30, 2003, and
 - U.S. Census Bureau, Current Population Survey.

- Overview:** The Census Bureau collects and provides timely information about the people and the economy of the United States. The decennial censuses provide data on demographic characteristics (e.g., age, race, Hispanic ethnicity, sex) of the population, family structure, educational attainment, income level, housing status, and the percentage of persons living at or below the poverty level. In addition, the Census Bureau provides intracensal population estimates for counties by age, race, ethnicity and gender for each year. Also, the Census Bureau conducts a number of population surveys such as the current Population Survey and the American Community Survey.

- Population:** United States population.
- Strengths:** A wide range of online statistical data on the United States population is available on the web in different formats (e.g., tables, maps). State- and county-specific information is easily accessible, and links to other census websites are provided.
- Limitations:** Only limited municipality data are available between censuses. The availability may improve when the American Community Survey is completely implemented.
- Urban Institute and Kaiser Commission on Medicaid and the Uninsured.

Appendix B - Glossary

Acquired Immunodeficiency Syndrome (AIDS):	The current Centers for Disease Control and Prevention AIDS definition includes the following conditions: <ul style="list-style-type: none">· HIV positive, AND· CD4 (T-cell) count below 200 OR presence of one or more opportunistic infections.
Antiretroviral Drug:	A drug used to combat the Human Immunodeficiency Virus (HIV).
Core Surveillance:	Activities conducted by the Epidemiologic Services unit within the Division of HIV/AIDS Services.
Diagnosis:	The art or act of identifying a disease from its signs and symptoms.
Eligible Metropolitan Area:	Geographic areas highly impacted by HIV/AIDS that are eligible to receive Title I CARE Act funds.
Epidemic:	The occurrence of more cases of a disease than would be expected in a community or region during a given time period.
Epidemiology:	The study of the populations in order to determine frequency and distribution of disease and measure risks.
Exposure Category:	In describing HIV/AIDS cases, same as transmission categories; how an individual may have been exposed to HIV, such as injection drug use, male-to-male sexual contact, and heterosexual sex.
Heterosexual:	Relating to or characterized by a tendency to direct sexual desire toward the opposite sex.
HIV:	Human Immunodeficiency Virus: a type of virus called a retrovirus.
ICD-10:	The International Classification of Disease. Tenth revision.

Incidence:	The number of new events (i.e., diagnosed cases) in a period of time. Incidence is often expressed as an annual measure (the number of new cases occurring during a year). Incidence rate is the number of newly diagnosed cases per standard population size, usually expressed as cases per 100,000 population.
Morbidity:	The relative incidence of disease.
Mortality:	The number of deaths in a given time or place: the proportion of deaths to the population.
Poverty Level:	A measure of household income set by the United States Census Bureau.
Prevalence:	The number of occurrences of a given disease or other condition existing in a given population at a designated time. The prevalence rate is the number of living (prevalent) cases per standard population size, usually expressed as cases per 100,000 population.
Proportion:	The amount of things or events relative to the total number of things or events. Measures are usually presented as percentages. Proportions are useful when describing the composition of populations.
Rate:	The amount of things or events relative to a standard quantity. It is derived by dividing the number of cases for a given sub population (e.g., African American males), by the total population count for that group. A rate is useful for making comparisons between groups having different population sizes.
Report Delay:	The time interval between when an HIV diagnosis was made and reported to the New Jersey Department of Health and Senior Services (Division of HIV/AIDS Services).

Ryan White CARE Act	Federal legislation created to address the unmet health care and service needs of people living with HIV disease and their families.
Seroprevalence:	The number of persons in a defined population who test HIV positive based on HIV testing of blood specimens. (Seroprevalence is often presented either as a percent of the total specimens tested or as a rate per 100,000 persons tested.)
Surveillance:	An ongoing, systematic process of collecting, analyzing and using data on specific health conditions and diseases.
Title I:	The part of the CARE Act that provides emergency assistance to localities (EMAs) disproportionately affected by the HIV/AIDS epidemic.
Title II Consortia:	The part of the CARE Act that provides funds to states and territories for primary health care and support services that enhance access to care to persons living with HIV and their families.
Trend:	A measurable direction that can be determined for a condition being examined.
Uninsured:	A person or group of persons who do not have health insurance.

Appendix C – Other Sources

New Jersey Department of Health and Senior Services

Division of HIV/AIDS Services

Home Page: www.nj.gov/health/aids/aidsprv.htm

Semi-Annual HIV/AIDS Report: www.nj.gov/health/aids/aidsqtr.htm

County and Municipal Statistics: www.nj.gov/health/aids/repa/aidsdata.shtml

Fact Sheets: www.nj.gov/health/aids/factsheets.htm

Centers for Disease Control and Prevention

National Centers for HIV, STD and TB Prevention

www.cdc.gov/nchstp/od/nchstp.html

Division of HIV/AIDS Prevention:

www.cdc.gov/hiv/dhap.htm

Division of Sexually Transmitted Diseases

www.cdc.gov/nchstp/dstd/HIVSTDinfo.htm

National Institute of Allergies and Infectious Diseases

www.niaid.nih.gov/final/aids/aids.htm

National Institute on Drug Abuse

www.nida.nih.gov/

National Institute of Health – Office of AIDS Research

www.nih.gov/od/oar/index.htm

Kaiser Family Foundation

www.KFF.org/hivaids/index.html

New Jersey Department of Education

New Jersey Student Health Survey of High School Students at

www.nj.gov/njded/students/yrbs/index.html

References

1. Ryan White Comprehensive AIDS Resources Emergency Act, Title II Manual, 2000.
2. Centers for Disease Control and Prevention website.
www.cdc.gov/nchstp/MMWRs/HIV_Prevention_Through_Early_Detection.htm
3. AIDS Weekly, "HIV/AIDS: HIV Infection Augments Drug Abuse-Related Neurotoxicity," January 22, 2003.
4. Jacobs, Andrew, "The Beast in the Bathhouse" New York Times, January 12, 2004, sec. B, page 1. column 2.

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